Name: _____ Class: _____ Date: _____ ID: A

MFCR SIA #1 Practice 2

Multiple Choice
Identify the choice that best completes the statement or answers the question.

What is an algebraic expression for the word phrase?

____ 1. the sum of q and 11

a. $\frac{q}{11}$ b. $q + 11$ c. $11q$ d. $q - 11$

____ 2. the difference of n and 8

a. $8n$ b. $\frac{n}{8}$ c. $n - 8$ d. $n + 8$

____ 3. the product of x and 7

a. $7x$ b. $x - 7$ c. $\frac{x}{7}$ d. $x + 7$

____ 4. the quotient of w and 3

a. $3w$ b. $\frac{w}{3}$ c. $w + 3$ d. $w - 3$

____ 5. 6 times the sum of f and c

a. $6 + f + c$ b. $6f + c$ c. $6fc$ d. $6(f + c)$

____ 6. the quotient of 6 and the difference of a and w

a. $\frac{a - w}{6}$ b. $6 - \frac{a}{w}$ c. $\frac{6}{a - w}$ d. $6a + w\frac{6 - a}{w}$

____ 7. 2 times the difference of s and b

a. $2 - s\ b$ b. $2s - b$ c. $2sb$ d. $2(s - b)$

What word phrase can you use to represent the algebraic expression?

____ 8. $9c$

a. nine minus a number c
b. nine plus a number c
c. nine divided by a number c
d. nine times a number c

____ 9. $6x + 6$

a. the sum of six times a number x and six
b. six times the sum of a number x and six
c. a number x times the sum of six and six
d. six times the sum of a number x and six

What is the simplified form of each expression?

____ 10. $3(11-1)^2 \div 2$
a. 50 b. 150 c. 15 d. 30

____ 11. $2(8 + 11) \div (5 - 4)$
a. 14 b. 38 c. 27 d. 3

____ 12. Evaluate $u + xy$, for $u = 3$, $x = 5$, and $y = 4$.
a. 12 b. 32 c. 23 d. 19

____ 13. Evaluate $\frac{u}{z} + xy^3$, for $u = 20$, $x = 7$, $y = 3$, and $z = 2$.
a. 9271 b. 199 c. 459 d. 29791

____ 14. Evaluate $(ab)^2$ for $a = 6$ and $b = 4$.
a. 256 b. 576 c. 96 d. 48

What property is illustrated by each statement?

____ 15. $5 + 8.6 = 8.6 + 5$
a. Inverse Property of Addition
b. Associative Property of Addition
c. Inverse Property of Multiplication
d. Commutative Property of Addition

____ 16. $10 + (4 + 3) = (10 + 4) + 3$
a. Commutative Property of Addition
b. Inverse Property of Addition
c. Commutative Property of Multiplication
d. Associative Property of Addition

____ 17. $6\left(-\frac{3}{2}\right) = \left(-\frac{3}{2}\right)6$
a. Commutative Property of Addition
b. Associative Property of Addition
c. Commutative Property of Multiplication
d. Inverse Property of Multiplication

____ 18. At the video store, you buy two CDs for $15.95 each and a DVD for $20.95. Use mental math to find the total cost of your purchases.
a. $36.90 b. $52.85 c. $73.80 d. $57.85

____ 19. At the grocery store, you buy a carton of milk for $4.90 a loaf of bread for $1.95, and a bag of cookies for $2.05. Use mental math to find the total cost of the groceries.
a. $8.70 b. $9.00 c. $8.90 d. $9.10

What is each sum?

____ 20. –8 + 10
a. –18 b. 2 c. 18 d. –2

____ 21. –7 + (–5)
a. –2 b. 2 c. 12 d. –12

____ 22. –6.2 + 3.8
a. 2.4 b. –2.4 c. 10 d. –10

____ 23. $\frac{2}{8} + \left(-\frac{4}{3}\right)$
a. $-\frac{5}{2}$ b. $-\frac{13}{12}$ c. $\frac{19}{12}$ d. $-\frac{2}{5}$

What is each difference?

____ 24. $\frac{6}{10} - \frac{1}{7}$
a. $\frac{5}{3}$ b. $\frac{3}{5}$ c. $\frac{26}{35}$ d. $\frac{16}{35}$

____ 25. –3.3 – 8.7
a. –5.4 b. 12 c. 5.4 d. –12

____ 26. 1 – 1
a. 2 b. –1 c. 0 d. –2

____ 27. A mountain climber ascends a mountain to its peak. The peak is 11,300 ft above sea level. The climber then descends 210 ft to meet a fellow climber. Find the climber's elevation above sea level after meeting the other climber.
a. –11,090 ft b. 11,510 ft c. 9,200 ft d. 11,090 ft

____ 28. You made two deposits to your bank account this month. One deposit was $17.09, and the second deposit was $14.36. Your balance at the end of the month is $72.31, and you made no withdrawals. Write and evaluate an expression for your balance at the beginning of the month.
a. $72.31 + $17.09 + $14.36; $103.76
b. $72.31 + ($17.09 – $14.36); $75.04
c. $72.31 – $17.09 – $14.36; $40.86
d. $72.31 – ($17.09 – $14.36); $69.58

What is each product?

____ 29. –8(–2)
a. 16 b. –20.8 c. –16 d. –5.2

____ 30. –7.7(–2.4)
a. 18.48 b. –13.09 c. –4.08 d. –18.48

____ 31. $\frac{9}{7} \bullet \frac{7}{2}$

a. $\frac{5}{2}$ b. $\frac{9}{2}$ c. $\frac{2}{5}$ d. $\frac{67}{14}$

____ 32. $(-2.8)^2$

a. –5.6 b. 7.84 c. 5.6 d. –7.84

What is the simplified form of each expression?

____ 33. $\frac{3}{5}(-30m + 35)$

a. $-18m + 105$
b. $-18m + 35$
c. $-90m + 21$
d. $-18m + 21$

____ 34. $(-2 - c)(-1)$

a. $-2 - c$ b. $2 + c$ c. $-2 + c$ d. $2 - c$

____ 35. $(9 - 9c)(-5)$

a. $45 + 45c$ b. $-45 + 45c$ c. $-45 - 45c$ d. $45 - 45c$

____ 36. $1.7m^2 + 6.5n - 4n + 2.5m^2 - n$

a. $4.2m^2 + 1.5n$
b. $4.2m^2 - 1.5n$
c. $1.5m^2 - 4.2n$
d. $1.5m^2 + 4.2n$

____ 37. $9.4x^2 + 6.4m - 3.6m + 8.7x^2 - 3.4m$

a. $18.1x^2 - 0.6m$
b. $0.7x^2 - 0.6m$
c. $18.1x^2 + 6.2m$
d. $0.7x^2 + 6.2m$

What sum or difference is equivalent to the expression?

____ 38. $\frac{3x + 9}{7}$

a. $\frac{9}{7}$ b. $\frac{12}{7}x$ c. $\frac{9}{7}x + \frac{3}{7}$ d. $\frac{3}{7}x + \frac{9}{7}$

____ 39. $\frac{10x - 5}{9}$

a. $\frac{5}{9}x - \frac{10}{9}$ b. $\frac{5}{9}$ c. $\frac{10}{9}x - \frac{5}{9}$ d. $\frac{5}{9}x$

What is the simplified form of each expression?

____ 40. $-(7w - 3s)$

a. $-7w - 3s$ b. $7w + 3s$ c. $7w - 3s$ d. $-7w + 3s$

____ 41. $-(-3f+6h)$

a. $-3f-6h$ b. $3f+6h$ c. $-3f+6h$ d. $3f-6h$

____ 42. Magazines cost $1.90 each. What is the total cost of 6 magazines? Use mental math.

a. $11.40 b. $6.00 c. $12.00 d. $11.90

____ 43. T-shirts cost $9.95 each. What is the total cost of 4 magazines? Use mental math.

a. $40.30 b. $39.80 c. $36.00 d. $40.00

What is the solution of the equation?

____ 44. $9 = -d + 17$

a. 8 b. –8 c. –12 d. 12

____ 45. $4.6x + 3.3 = 12.5$

a. 3.4 b. 2 c. 4.7 d. 3

____ 46. $\frac{7}{9}x - 4 = 3$

a. 9 b. 10 c. $5\frac{4}{9}$ d. –9

____ 47. Steven wants to buy a $520 bicycle. Steven has no money saved, but will be able to deposit $45 into a savings account when he receives his paycheck each Friday. However, before Steven can buy the bike, he must give his sister $65 that he owes her. For how many weeks will Steven need to deposit money into his savings account before he can pay back his sister and buy the bike?

a. 17 weeks b. 13 weeks c. 14 weeks d. 12 weeks

____ 48. Aimi is making Valentine's Day cards for everyone in her class. She plans to use a whole sheet of paper for each of her 5 closest friends. She will use $\frac{1}{4}$ of a sheet of paper for everyone else in the class. She has 20 sheets of paper. How many cards can she make?

a. 3 cards b. 80 cards c. 5 cards d. 60 cards

____ 49. Hannah wants to buy a $485 camera. She can save $30 each week from her paycheck. However, before Hannah can buy the camera, she must give her brother $85 that she owes him. For how many weeks will Hannah need to save before she can pay back her brother and buy the camera?

a. 21 weeks b. 22 weeks c. 19 weeks d. 18 weeks

What is the solution of the equation?

____ 50. $-12 = \frac{3 + z}{-4}$

a. 6 b. 51 c. 0 d. 45

____ 51. $\frac{b+9}{-3} = -6$

a. 9 b. 11 c. 27 d. –7

____ 52. Which property of equality justifies step c?

a. $27 = -11 - 8x$

b. $27 = -11 + (-8x)$

c. $27 + 11 = -11 + (-8x) + 11$

d. $27 + 11 = -11 + 11 + (-8x)$

e. $38 = -8x$

f. $\frac{38}{-8} = \frac{-8x}{-8}$

g. $-\frac{19}{4} = x$

a. Division Property of Equality
b. Multiplication Property of Equality
c. Addition Property of Equality
d. Subtraction Property of Equality

What is the solution of the equation?

____ 53. $7 = -4p + 2 + 5p$

a. 9 b. –5 c. 5 d. 7

____ 54. $5x + 4 - 6x = 9$

a. –8 b. –3 c. –5 d. 0

____ 55. $6d - 3d + 6d - 4 - 2d = 0$

a. $\frac{4}{11}$ b. 3 c. $\frac{4}{7}$ d. $\frac{4}{5}$

____ 56. John and 3 friends are going out for pizza for lunch. They split one pizza and 4 large drinks. The pizza cost $11.50. They spend a total of $17.10. Find the cost of one large drink.

a. $1.60 b. $1.40 c. $1.87 d. $9.53

____ 57. Angela and Neil are going to the movies. They each bought a medium popcorn, and Neil got a small soft drink. Angela had a $5 gift certificate to put toward the cost, and Neil paid the rest, which came to $24.10. A movie ticket costs $9.00 and a medium popcorn costs $4.60. How much does a soft drink cost at the theater?

a. $1.90 b. $1.10 c. $15.50 d. $6.50

What is the solution of the equation?

____ 58. $6(y + 6) = 90$

a. 9 b. –21 c. 21 d. 10

____ 59. $2(y – 6) + 5 = 11$

a. 3 b. –3 c. 9 d. 10

____ 60. $–18 = –2(6 + 3z)$

a. –18 b. 1 c. 36 d. –2

____ 61. $\frac{3p}{8} – \frac{61}{8} = –8$

a. 3 b. –1 c. –184 d. –15

____ 62. $\frac{5p}{9} + 7 = –3$

a. –24 b. $7\frac{1}{5}$ c. –18 d. –13

____ 63. $2.5x + 1.3 = 13.8$

a. 6 b. 5 c. 5.8 d. 6

____ 64. $2.4x – 1.1 = 6.1$

a. 3 b. 4 c. 2.1 d. 7.9

What is the solution of the equation?

____ 65. $6x + 7 = 2x – 9$

a. –1 b. –7 c. –4 d. –2

____ 66. $27 – 5t = 4t$

a. $–\frac{1}{27}$ b. $\frac{1}{3}$ c. 3 d. –27

____ 67. $6x – 8 = 4 – 6x$

a. 4 b. 0 c. –2 d. 1

____ 68. A camera manufacturer spends $2800 each day for overhead expenses plus $6 per camera for labor and materials. The cameras sell for $10 each. How many cameras must the company sell in one day to equal its daily costs? If the manufacturer can increase production by 50 cameras per day, what would their daily profit be?

a. The company must sell 700 cameras to equal its daily costs; $200
b. The company must sell 280 cameras to equal its daily costs; $1480
c. The company must sell 700 cameras to equal its daily costs; $500
d. The company must sell 615 cameras to equal its daily costs; $140

What is the solution of the equation?

____ 69. $4(10x - 8) = 7(5x + 9)$

a. 20 b. 18 c. 19 d. –19

____ 70. $-2p + 9 = -3(-3p + 3) + (-10 - 4p)$

a. $p = 4$ b. $p = 8$ c. $p = 5$ d. $p = 3$

____ 71. What equation do you get when you solve $s - d = s + wx$ for x?

a. $x = \frac{2s - d}{w}$ c. $x = -\frac{d}{w}$

b. $x = -\frac{2s + d}{w}$ d. $x = -\frac{w}{d}$

____ 72. What equation do you get when you solve $wy - qc = \frac{cy}{t}$ for y?

a. $y = -\frac{t(wy - qc)}{c}$ c. $y = \frac{t(wy - qc)}{c}$

b. $y = \frac{qct}{wt - c}$ d. $y = -\frac{qct}{wt - c}$

____ 73. What is the radius of a circle with circumference 51 mm? Round to the nearest tenth. Use 3.14 for π.

a. 32.5 mm c. 16.2 mm

b. 80.1 mm d. 8.1 mm

____ 74. What is the height of a triangle that has an area of 75 in.^{2} and a base with a length of 30 in.?

a. 2.5 in. c. 1.25 in.

b. 0.2 in. d. 5 in.

____ 75. At an automobile factory, 670 parts are made in 3 hours. What is the average rate at which parts are made per hour?

a. 238 parts/h b. 283 parts/h c. 223 parts/h d. 180 parts/h

____ 76. A flock of Canadian geese migrated 798 miles in 25 days. What was the average rate at which these geese traveled in miles per day?

a. –8 miles per day c. 32 miles per day

b. 57 miles per day d. 77 miles per day

____ 77. The total cost to rent a row boat is $15 times the number of hours the boat is used. How long can you rent the boat for $465?

a. 6975 hours b. 0.032 hours c. 31 hours d. 36 hours

____ 78. Car A travels 135 miles in 7 hours. Car B travels 313 miles in 5 hours. Car C travels 444 miles in 14 hours. Which car has the fastest average speed?

a. Car B c. Car A

b. They all have the same average speed d. Car C

____ 79. You are shopping for jeans. City Express sells 3 pairs of jeans for $68. Denim Planet sells 2 pairs of jeans for $76. New Threads sells 4 pairs of jeans for $124. Which store has the best deal?

a. All jeans are the same price
b. Denim Planet
c. City Express
d. New Threads

____ 80. Lenny runs a 250-meter course in 50 seconds. Gary runs a 300-meter course in 60 seconds. Bruford runs a 600-meter course in 120 seconds. Which athlete is the fastest? Round each speed to one decimal place.

a. Gary is the fastest.
b. Bruford is the fastest.
c. Lenny is the fastest.
d. They each travel at the same average speed.

What is the given amount converted to the given units?

____ 81. 90 s; minutes

a. 1.5 min
b. 2.75 min
c. 1.25 min
d. 0.8 min

____ 82. 68 cm; meters

a. 6.8 m
b. 0.68 m
c. 6800 m
d. 680 m

____ 83. 108 ft; inches

a. 1296 in.
b. 10.8 in.
c. 9 in.
d. 1080 in.

____ 84. An office building is 91 ft high. About how tall is this in meters?

a. 273 m
b. 27.74 m
c. 32.5 m
d. 298.5 m

____ 85. The distance between Lakeview and Sun Valley is 96 km. About how far is this in miles?

a. 154.46 mi
b. 59.66 mi
c. 73.85 mi
d. 124.8 mi

____ 86. On a certain day 1 US dollar is equivalent in value to 90 Japanese yen. Lucy is going on a trip to Japan. She has $450 to spend. How many yen is this?

a. 40500 yen
b. 0.20 yen
c. 5 yen
d. 40950 yen

____ 87. A car is driving at a speed of 60 mi/h. What is the speed of the car in feet per minute?

a. 3,600 ft/min
b. 2,580 ft/min
c. 316,800 ft/min
d. 5,280 ft/min

____ 88. A pool is filled at a rate of 90 gal/min. What is the rate in mL per second?

a. 0.7 mL/s
b. 1.43 mL/s
c. 5678.1 mL/s
d. 5400 mL/s

____ 89. A student ran the 100-m dash in 19.2 s. What was the student's speed in miles per hour?

a. 5.2 mi/h
b. 11.7 mi/h
c. 2.3 mi/h
d. 312.5 mi/h

What is the solution of the proportion?

____ 90. $\frac{6}{2} = \frac{-17}{x}$

a. –5.7 b. –51 c. –34 d. –0.7

____ 91. $\frac{23}{y} = \frac{4}{9}$

a. 1.6 b. 207 c. 10.2 d. 51.8

What is the solution of the proportion?

____ 92. $\frac{x-8}{3} = \frac{5}{15}$

a. 17 b. $\frac{23}{15}$ c. 1 d. 9

____ 93. A van travels 240 miles on 12 gallons of gas. Find how many gallons the van needs to travel 420 miles.

a. 25 gallons of gas
b. 81 gallons of gas
c. 84 gallons of gas
d. 21 gallons of gas

____ 94. School guidelines require that there must be at least 2 chaperones for every 25 students going on a school trip. How many chaperones must there be for 57 students?

a. 29 chaperones
b. 2 chaperones
c. 4 chaperones
d. 5 chaperones

____ 95. What is the actual distance from New Wilmington to Sharon through Mercer?

a. ?? mi
b. ?? mi
c. ?? mi
d. ?? mi

____ 96. What is the actual distance from New Wilmington to Sharon through Volant?

a. 96 mi
b. 72 mi
c. 48 mi
d. 24 mi

____ 97. A map has a scale of 1 cm : 18 km. Two cities are 2.7 cm apart on the map. To the nearest tenth of a kilometer, what is the actual distance corresponding to the map distance?

a. 48.6 km b. 66.6 km c. 138.6 km d. 51.3 km

____ 98. Two rectangles are similar. One has a length of 10 cm and a width of 8 cm, and the other has a width of 7 cm. Find the length of the second rectangle. Round to the nearest tenth if necessary.

a. 8.8 cm b. 6.6 cm c. 10.1 cm d. 5.6 cm

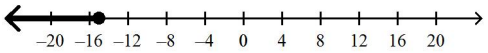
____ 99. A scale model of a city has scale of 1 cm : 2.5 km. Two buildings in the model are 1.7 cm apart. To the nearest tenth of a kilometer, what is the actual distance between the buildings in the city?

a. 16.8 km b. 6.8 km c. 4.3 km d. 6 km

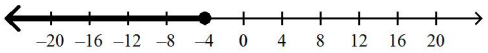
What are the solutions of the inequality? Graph the solutions.

____ 100. $x - 3 \leq -12$

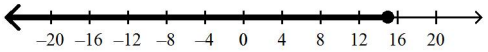
a. $x \leq -15$



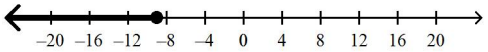
b. $x \leq \frac{-12}{3}$



c. $x \leq 15$

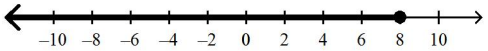


d. $x \leq -9$

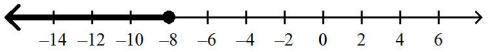


____ 101. $y - 6 \leq 2$

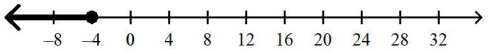
a. $y \leq 8$



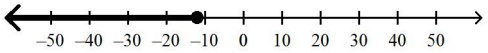
b. $y \leq -8$



c. $y \leq -4$

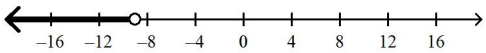


d. $y \leq -12$

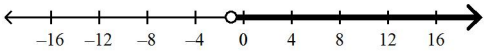


____ 102. $r - 5 > 4$

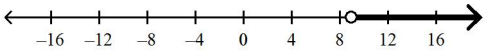
a. $r < -9$



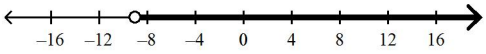
b. $r > -1$



c. $r > 9$



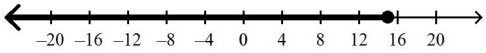
d. $r > -9$



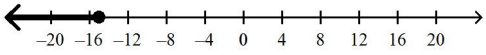
What are the solutions of the inequality? Graph the solutions.

____ 103. $x + 7 \leq -8$

a. $x \leq 15$



b. $x \leq -15$

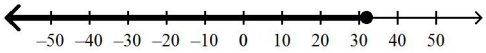


c. $x \leq -1$

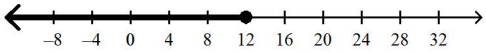
d. $x \leq -\frac{8}{7}$

____ 104. $b + 8 \leq 4$

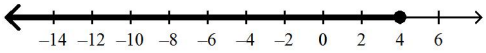
a. $b \leq 32$



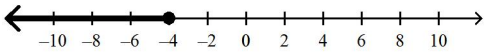
b. $b \leq 12$



c. $b \leq 4$

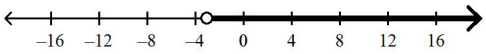


d. $b \leq -4$

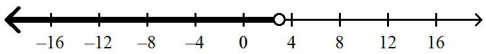


____ 105. $p + 4 > 1$

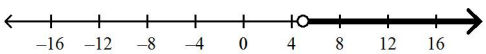
a. $p > -3$



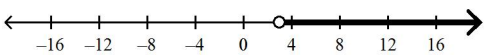
b. $p < 3$



c. $p > 5$



d. $p > 3$



____ 106. Suppose you had d dollars in your bank account. You spent \$12 but have at least \$51 left. How much money did you have initially? Write and solve an inequality that represents this situation.

a. $d + 12 \leq 51$; $d \leq 75$
b. $d + 12 \geq 51$; $d \geq 75$
c. $d - 12 \geq 51$; $d \geq 63$
d. $d - 12 > 51$; $d > 63$

____ 107. Your class hopes to collect at least 325 cans of food for the annual food drive. There were 135 cans donated the first week and 89 more the second week.

Write an inequality that describes this situation. Let c represent the number of cans of food that must be collected by the end of the third week for your class to meet or surpass your goal. How many cans are needed to meet or surpass your goal?

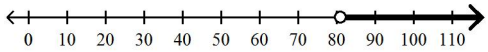
a. $135 + 89 + c > 325$; $c > 101$
b. $135 + 89 + 325 \geq c$; $c \geq 549$
c. $135 + 89 + c \geq 325$; $c \geq 101$
d. $135 + 89 + c \geq 325$; $c \leq 549$

What are the solutions of the inequality? Graph the solutions.

____ 108. $\frac{x}{9} > 9$

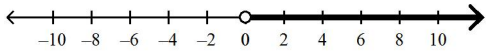
a. $x > 1$

b. $x > 81$



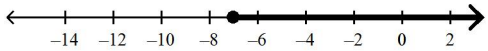
c. $x > 1$

d. $x > 0$

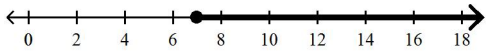


____ 109. $\frac{x}{5} \geq -2$

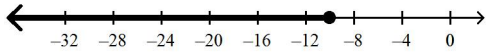
a. $x \geq -7$



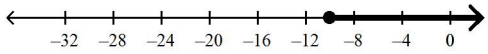
b. $x \geq 7$



c. $x \leq -10$



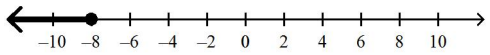
d. $x \geq -10$



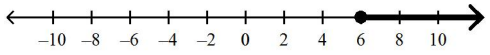
What are the solutions of the inequality? Graph and check the solutions.

____ 110. $-\frac{x}{4} \leq 2$

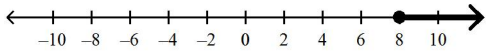
a. $x \leq -8$



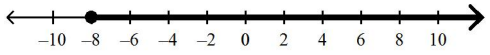
b. $x \leq 6$



c. $x \geq 8$



d. $x \geq -8$



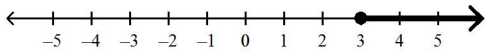
____ 111. The French Club is sponsoring a bake sale. If their goal is to raise at least $140, how many pastries must they sell at $3.50 each in order to meet that goal? Write and solve an inequality.

a. $3.50p \geq 140;\ p \geq 490$
b. $140p \geq 3.50;\ p \geq 40$
c. $3.50p \geq 140;\ p \geq 136.5$
d. $3.50p \geq 140;\ p \geq 40$

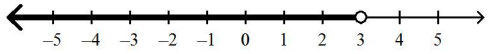
What are the solutions of the inequality? Graph the solutions.

____ 112. $-4x \geq -12$

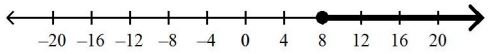
a. $x \geq 3$



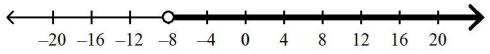
b. $x \leq 3$



c. $x \geq 8$

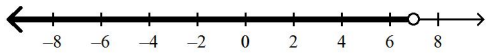


d. $x > -8$

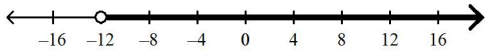


____ 113. $-2m < -14$

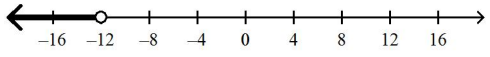
a. $m < 7$



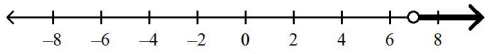
b. $m > -12$



c. $m < -12$



d. $m > 7$



What are the solutions of the inequality? Check the solutions.

____ 114. $-\frac{2}{5}x - 9 < \frac{9}{10}$

a. $x > -24\frac{3}{4}$ b. $x < 10\frac{3}{10}$ c. $x < 9\frac{9}{10}$ d. $x < 3\frac{24}{25}$

____ 115. $4x + 6 < -6$

a. $x < -3$ b. $x > -3$ c. $x > -6$ d. $x < +6$

What are the solutions of the inequality?

____ 116. $2(b - 8) > 12$

a. $b > 20$ b. $b > 6$ c. $b > 14$ d. $b < 20$

____ 117. $q + 12 - 2(q - 22) > 0$

a. $q < -32$ b. $q > -32$ c. $q > 56$ d. $q < 56$

What are the solutions of the inequality?

____ 118. $12 + 10w \geq 8(w + 12)$

a. $w \geq -42$ b. $w \geq 48$ c. $w \geq 42$ d. $w \geq 54$

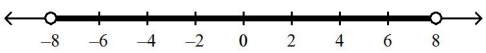
____ 119. $8n - 14 \leq 13n + 6$

a. $n \geq \frac{20}{21}$ b. $n \geq -1\frac{3}{5}$ c. $n \geq -4$ d. $n \geq \frac{8}{21}$

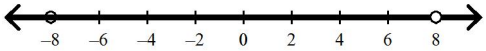
What compound inequality represents the phrase? Graph the solutions.

____ 120. all real numbers that are greater than –8 and less than 8

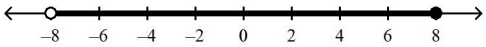
a. $-8 < x < 8$



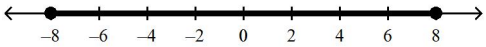
b. $-8 < x < 8$



c. $-8 < x \leq 8$

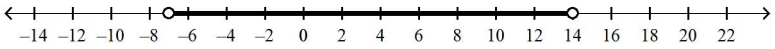


d. $-8 \leq x \leq 8$

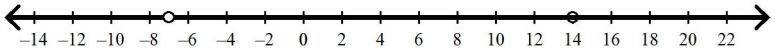


____ 121. all real numbers w that are less than –7 or greater than 14

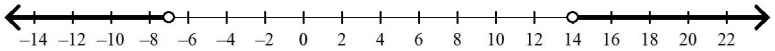
a. $-7 < w < 14$



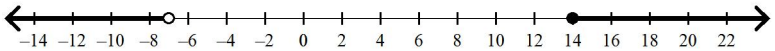
b. $w < 14$ or $w > -7$



c. $w < -7$ or $w > 14$



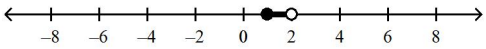
d. $w < -7$ or $w \geq 14$



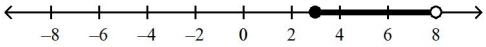
What are the solutions of the compound inequality? Graph the solutions.

____ 122. $-2 \leq 2x - 4 < 8$

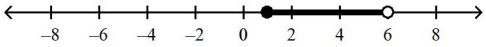
a. $1 \leq x < 2$



b. $3 \leq x < 8$



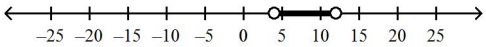
c. $1 \leq x < 6$



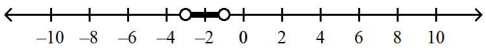
d. $0 \leq x < 2$

____ 123. $-2 < 4x - 10 < 6$

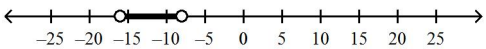
a. $4 < x < 12$



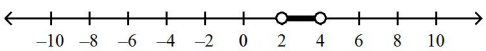
b. $-3 < x < -1$



c. $-16 < x < -8$



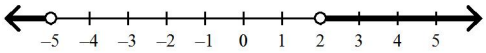
d. $2 < x < 4$



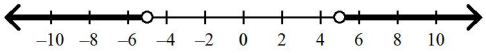
What are the solutions of the compound inequality? Graph the solutions.

____ 124. $2x - 2 < -12$ or $2x + 3 > 7$

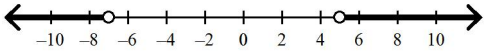
a. $x < -5$ or $x > 2$



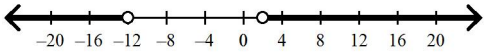
b. $x < -5$ or $x > 5$



c. $x < -7$ or $x > 5$



d. $x < -12$ or $x > 2$



What is the simplified form of each expression?

____ 125. $(-5.1)^0$

a. 1 b. 0 c. –5.1 d. –1

____ 126. $-(10)^{-1}$

a. $-\frac{1}{10}$ b. $-\frac{1}{-1^{10}}$ c. $\frac{1}{10}$ d. 10

____ 127. $(-2)^{-5}$

a. 10 b. $-\frac{1}{32}$ c. –32 d. $\frac{1}{32}$

____ 128. $3g^{-2}b^2$

a. $\frac{3b^2}{g^2}$ b. $3g^2b^{-2}$ c. $3gb^{-4}$ d. $\frac{b^2}{3g^2}$

____ 129. $\frac{1}{c^{-5}}$

a. c^5 b. $5c$ c. $-c^5$ d. $-\frac{5}{c}$

____ 130. $\frac{3}{g^{-2}h^3}$

a. $\frac{3}{g^2h^3}$ b. $\frac{3g^2}{h^3}$ c. $\frac{6g}{h^3}$ d. $\frac{3}{gh}$

____ 131. What is the value of $2x^{-2}y^{-2}$ for $x = 3$ and $y = -2$?

a. $\frac{1}{18}$ b. 72 c. $2(-6)^{-4}$ d. $\frac{1}{648}$

What is each number written in scientific notation?

____ 132. 1,220,000,000

a. 1.22×10 b. 0.122×10^{10} c. 12.2×100^{8} d. 1.22×10^{9}

____ 133. 0.0287

a. 0.287×10^{-1} b. 2.87×10^{-2} c. 2.87×10 d. 28.7×100^{-3}

What is each number written in standard notation?

____ 134. 5×10^{3}

a. 500 b. 5,000 c. 50^{3} d. 150

____ 135. 5.71×10^{-3}

a. –171.3 b. 0.0571 c. 0.000571 d. 0.00571

What is each expression written using each base only once?

____ 136. $4^{8} \cdot 4^{3}$

a. 4^{11} b. 12^{11} c. 4^{24} d. 64^{11}

____ 137. $(3.16)^{-5} \cdot (3.16)^{6}$

a. -3.16^{11} b. 3.16 c. 1 d. 11

____ 138. $(-4)^{-6} \cdot (-4)^{7}$

a. 4^{13} b. –4 c. 13 d. 1

____ 139. $9^{-8} \cdot 9^{-2} \cdot 9^{10}$

a. 1 b. 9^{160} c. 729 d. 27

What is the simplified form of each expression?

____ 140. $4c^{-1} \cdot 3c^{10}$

a. $12c^{-10}$ b. $12c^{9}$ c. $7c^{-10}$ d. $7c^{9}$

____ 141. $(-2x^{8}) \cdot 3y^{9} \cdot 2x^{4}$

a. $3x^{12}y^{9}$ b. $-12x^{72}y^{9}$ c. $-12xy^{21}$ d. $-12x^{12}y^{9}$

Find the simplified form of the expression. Give your answer in scientific notation.

____ 142. $\left(8 \times 10^{7}\right)\left(7 \times 10^{4}\right)$

a. 1.5×10^{12} b. 5.6×10^{12} c. 1.5×10^{29} d. 5.6×10^{29}

____ 143. $\left(7 \times 10^{-4}\right)\left(9 \times 10^{-10}\right)$

a. 6.3×10^{-13} b. 63×10^{-13} c. 6.3×10^{-15} d. 6.3×10^{-16}

____ 144. $\left(3 \times 10^{6}\right)\left(8 \times 10^{-4}\right)$

a. 1.1×10^{3} b. 2.4×10^{3} c. 1.1×10^{-23} d. 2.4×10^{-23}

____ 145. Astronomers measure large distances in light-years. One light-year is the distance that light can travel in one year, or approximately 5.88×10^{12} miles. Suppose a star is 9.8×10^{1} light-years from Earth. In scientific notation, approximately how many miles is it?

a. 5.88×10^{13} miles c. 5.88×10^{12} miles
b. 5.76×10^{14} miles d. 9.8×10^{12} miles

____ 146. Last year a large trucking company delivered 6.0×10^{5} tons of goods with an average value of $27,000 per ton. What was the total value of the goods delivered? Write the answer in scientific notation.

a. 1.62×10^{11} dollars c. 1.62×10^{10} dollars
b. 1.62×10^{9} dollars d. 1.62×10^{12} dollars

What is the simplified form of the expression?

____ 147. $(m^{7})^{2}$

a. $2m^{14}$ b. m^{49} c. m^{9} d. m^{14}

____ 148. $(k^{-2})^{9}$

a. k^{18} b. $\frac{1}{k^{512}}$ c. $\frac{1}{k^{18}}$ d. $\frac{x}{18}$

____ 149. $t^{8}\left(t^{10}\right)^{0}$

a. t^{80} b. t^{80} c. t^{8} d. t^{-8}

____ 150. $\left(y^{-5}\right)^{-10} y^{10}$

a. y^{-60} b. y^{60} c. y^{-60} d. y^{-150}

What is the simplified form of each expression?

____ 151. $(3q^2)^4$

a. $3q^{16}$ b. $81q^6$ c. $3q^8$ d. $81q^8$

____ 152. $(6q^6)^{-4}$

a. $6q^{1296}$ b. $1296q^2$ c. $\frac{1}{1296}q^{-24}$ d. $6q^{-24}$

____ 153. $(-5a^3b^6)^3(a^4b^2)^7$

a. $\frac{a^{37}b^{32}}{-125}$ b. $-125a^{37}b^{32}$ c. $125a^{37}b^{32}$ d. $-125a^{17}b^{18}$

____ 154. $(3c^2d^4)^3(2c^5d^8)^3$

a. $216c^{21}d^{36}$ b. $-216c^{21}d^{36}$ c. $216c^{13}d^{18}$ d. $\frac{8c^{21}d^{36}}{27}$

____ 155. Suppose a white dwarf star has a diameter of approximately 1.6692×10^4 km. Use the formula $4\pi r^2$ to find the approximate surface area of the star.

a. 1.4×10^{10} km^2 c. 8.75×10^8 km^2

b. 2.1×10^5 km^2 d. 8.75×10^6 km^2

____ 156. Suppose a spherical asteroid has a radius of approximately 9.0×10^2 m. Use the formula $\left(\frac{4}{3}\right)\pi r^3$ to find the approximate volume of the asteroid.

a. 3.05×10^6 m^3 c. 3.05×10^9 m^3

b. 1.95×10^{11} m^3 d. 1.13×10^4 m^3

What is the simplified form of each expression?

____ 157. $\frac{n^6}{n^2}$

a. $\frac{1}{n^4}$ b. n^4 c. n^8 d. n^{12}

____ 158. $\frac{a^{-10}}{a^5}$

a. $\frac{1}{a^{15}}$ b. $\frac{1}{a^{-5}}$ c. a^{15} d. a^{-5}

____ 159. $\frac{c^8d^{-12}}{c^{-4}d^{-8}}$

a. $c^{12}d^4$ b. $c^{-4}d^{-4}$ c. $\frac{d^{-4}}{d^{-12}}$ d. $\frac{c^{12}}{d^4}$

____ 160. Scientists believe that there is an extremely massive black hole at the center of the Milky Way. How many times more massive than the Sun would a black hole with a mass of 7.36×10^{36} kg be? The mass of the Sun is approximately 1.99×10^{30} kg.

a. 3.7×10^{6}
c. 3.7×10^{4}
b. 3.7×10^{8}
d. 3.7×10^{3}

What is the simplified form of the expression?

____ 161. $\left(\frac{3x}{2}\right)^4$

a. $\frac{81x^4}{16}$
b. $6x^4$
c. $\frac{12x^4}{8}$
d. $\frac{81x^4}{2}$

____ 162. $\left(\frac{2}{5n^9}\right)^2$

a. $10n^{18}$
b. $\frac{4}{5n}$
c. $\frac{4}{25n^{18}}$
d. $\frac{4}{10n^{18}}$

____ 163. $\left(\frac{m^2}{10j^5}\right)^2$

a. $10m^4j^{10}$
b. $\frac{m^4}{100j^{10}}$
c. $\frac{m^4}{20j^{10}}$
d. $\frac{m^4}{10j}$

____ 164. $\left(\frac{k^4}{8p^4}\right)^{-3}$

a. $\frac{512p^{12}}{k^{12}}$
b. $8k^{12}p^{12}$
c. $\frac{512k^{12}}{8p}$
d. $\frac{-24k^{12}}{3p^{12}}$

____ 165. $\left(\frac{t^4}{10y^4}\right)^{-4}$

a. $10t^{16}y^{16}$
b. $\frac{10000y^{16}}{t^{16}}$
c. $\frac{-40t^{16}}{4y^{16}}$
d. $\frac{10000t^{16}}{10y}$

____ 166. Suppose a population of 160 crickets doubles in size every month. The function $f(x) = 160 \cdot 2^x$ gives the population after x months. How many crickets will there be after 2 years?

a. 2,684,354,560 crickets
c. 7,680 crickets
b. 640 crickets
d. 640 crickets

____ 167. Suppose an investment of $2,300 doubles in value every decade. The function $f(x) = 2{,}300 \cdot 2^x$ gives the value of the investment after x decades. How much is the investment worth after 2 decades?

a. $9,200
b. $92,000
c. $46,000
d. $9,200

Name the property of real numbers illustrated by the equation.

____ 168. $-2(x + 11) = -2x - 22$

a. Associative Property of Multiplication
b. Distributive Property
c. Commutative Property of Addition
d. Associative Property of Addition

____ 169. $\pi + 10 = 10 + \pi$

a. Closure Property
b. Commutative Property of Multiplication
c. Commutative Property of Addition
d. Associative Property of Addition

Evaluate the expression for the given value of the variable(s).

____ 170. $5a + 5b$; $a = -6$, $b = -5$

a. –55 b. 55 c. 5 d. –5

____ 171. $\dfrac{4(3h - 6)}{1 + h}$; $h = -2$

a. 32 b. 48 c. –48 d. 30

____ 172. $-x^2 - 4x - 4$; $x = -3$

a. 3 b. –1 c. 11 d. –17

Combine like terms. What is a simpler form of each expression?

____ 173. $4c - 4d + 8c - 3d$

a. $12c + 7d$ b. $12c - 7d$ c. $-12c - 7d$ d. $-7c + 12d$

____ 174. $-3(-4y + 3) + 7y$

a. $19y - 9$ b. $10y$ c. $-19y + 3$ d. $-19y - 9$

What is the solution of the following one-step equation?

____ 175. $x - 0.7 = -2$

a. –1.3 b. –0.4 c. 0.77 d. –0.77

Solve the equation.

____ 176. $3y + 20 = 3 + 2y$

a. $-\frac{1}{17}$ b. $7\frac{2}{3}$ c. 23 d. –17

____ 177. $0.125r - 0.0625 + 0.25r = 0.25 + r$

a. –0.28 b. 0.23 c. –0.5 d. –0.3

____ 178. $-5y - 9 = -(y - 1)$

a. $-\frac{1}{2}$ b. $-2\frac{1}{2}$ c. –2 d. $-\frac{2}{5}$

Use an algebraic equation to solve the problem.

____ 179. A rectangle is 3 times as long as it is wide. The perimeter is 60 cm. Find the dimensions of the rectangle. Round to the nearest tenth if necessary.

a. 7.5 cm by 22.5 cm
b. 7.5 cm by 52.5 cm
c. 20 cm by 60 cm
d. 15 cm by 22.5 cm

____ 180. The sides of a triangle are in the ratio 3 : 4 : 5. What is the length of each side if the perimeter of the triangle is 90 cm?

a. 10.5 cm, 11.5 cm, and 12.5 cm
b. 22.5 cm, 30 cm, and 37.5 cm
c. 7.5 cm, 11.5 cm, and 32.1 cm
d. 19.3 cm, 25.7 cm, and 32.1 cm

____ 181. Two cars leave Denver at the same time and travel in opposite directions. One car travels 10 mi/h faster than the other car. The cars are 300 mi apart in 3 h. How fast is each car traveling?

a. 35 mi/h and 45 mi/h
b. 55 mi/h and 35 mi/h
c. 45 mi/h and 55 mi/h
d. 55 mi/h and 65 mi/h

Is the following *always*, *sometimes*, or *never* true?

____ 182. $14 + 3x - 7 = 7x + 7 - 4x$

a. always b. sometimes c. never

____ 183. $8 + 6x - 10 = 10x + 11 - 4x$

a. always b. sometimes c. never

Solve the equation or formula for the indicated variable.

____ 184. $S = 5r^2t$, for t

a. $t = \frac{S}{5} - r$ b. $t = \frac{25r}{S}$ c. $t = r^2 - 5S$ d. $t = \frac{S}{5r^2}$

____ 185. $T = \frac{4U}{E}$, for U

a. $U = \frac{T - E}{4}$ b. $U = T + \frac{E}{4}$ c. $U = 4T - E$ d. $U = \frac{TE}{4}$

What inequality represents the sentence?

____ 186. 14 fewer than a number is at least –8

a. $x + 14 \le -8$
b. $x - 14 \ge -8$
c. $14 - x \ge -8$
d. $x - 14 < -8$

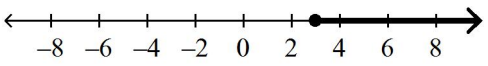
____ 187. The product of a number and 12 is no more than 15.

a. $12n < 15$
b. $12n > 15$
c. $12n \ge 15$
d. $12n \le 15$

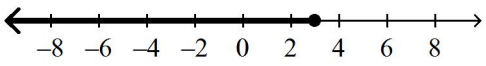
Solve the inequality. Graph the solution set.

____ 188. $2 + 2k \le 8$

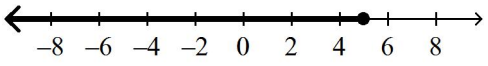
a. $k \ge 3$



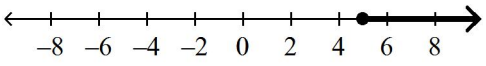
c. $k \le 3$



b. $k \le 5$

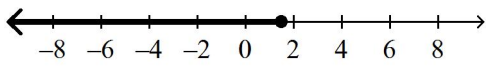


d. $k \ge 5$

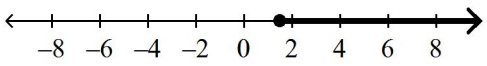


____ 189. $2r - 9 \geq -6$

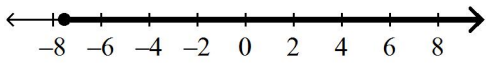
a. $r \leq 1\frac{1}{2}$



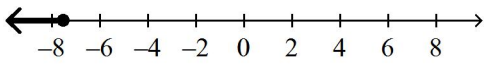
c. $r \geq 1\frac{1}{2}$



b. $r \geq -7\frac{1}{2}$

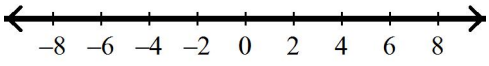


d. $r \leq -7\frac{1}{2}$

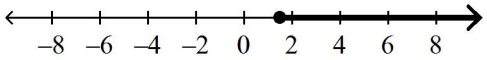


____ 190. $26 + 6b \geq 2(3b + 4)$

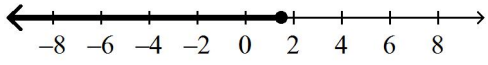
a. all real numbers



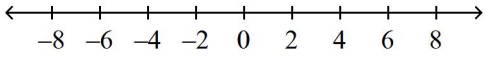
c. $b \geq 1\frac{1}{2}$



b. $b \leq 1\frac{1}{2}$



d. no solutions



Solve the problem by writing an inequality.

____ 191. A club decides to sell T-shirts for $15 as a fund-raiser. It costs $20 plus $9 per T-shirt to make the T-shirts. Write and solve an equation to find how many T-shirts the club needs to make and sell in order to profit at least $150.

a. $15x - (9x + 20) \geq 150$; $x \geq 28.33$
b. $15x - 9x + 20 \geq 150$; $x \geq 20$
c. $(8x + 20) - 15x \geq 150$; $x \geq 20$
d. $15x - 9(x + 20) \geq 150$; $x \geq 20$

____ 192. If the perimeter of a rectangular picture frame must be less than 200 in., and the width is 36 in., what must the height h of the frame be?

a. $h < 64$ in.
b. $h > 128$ in.
c. $h > 64$ in.
d. $h < 128$ in.

Is the inequality *sometimes*, *always*, or *never* true?

____ 193. $-2(2x + 9) > -4x + 9$

a. always
b. sometimes
c. never

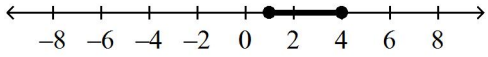
____ 194. $2(10x - 5) - 9x \leq 11x + 13$

a. always b. sometimes c. never

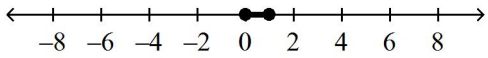
Solve the compound inequality. Graph the solution.

____ 195. $5x + 10 \geq 10$ and $7x - 7 \leq 14$

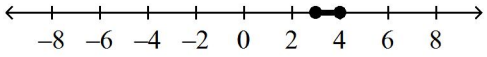
a. $x \geq 4$ or $x \leq 1$



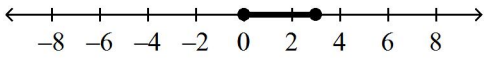
b. $x \geq 0$ and $x \leq 1$



c. $x \geq 4$ or $x \leq 3$

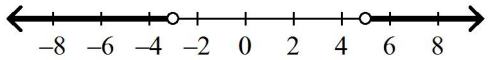


d. $x \geq 0$ and $x \leq 3$

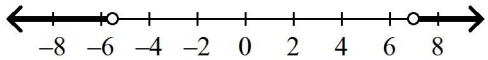


____ 196. $4x - 5 < -17$ or $5x + 6 > 31$

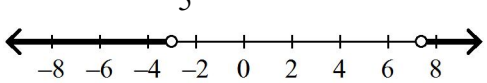
a. $x < -3$ or $x > 5$



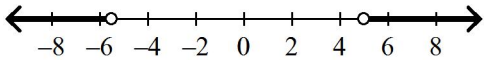
b. $x < -5\frac{1}{2}$ or $x > 7\frac{2}{5}$



c. $x < -3$ or $x > 7\frac{2}{5}$

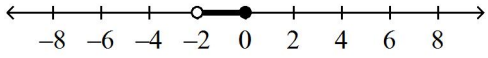


d. $x < -5\frac{1}{2}$ or $x > 5$

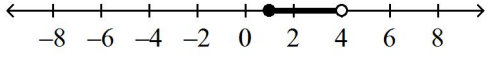


____ 197. $-2 \leq 2x - 4 < 4$

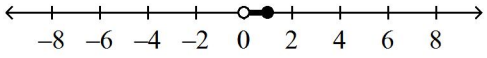
a. $0 \leq x < -2$



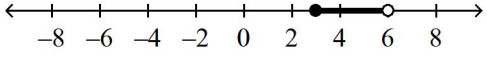
b. $1 \leq x < 4$



c. $1 \leq x < 0$



d. $3 \leq x < 6$



MFCR SIA #1 Practice 2
Answer Section

MULTIPLE CHOICE

1. ANS: B PTS: 1 DIF: L2 REF: 1-1 Variables and Expressions
   OBJ: 1-1.1 To write algebraic expressions
   TOP: 1-1 Problem 1 Writing Expressions With Addition and Subtraction
   KEY: algebraic expression | variable DOK: DOK 1
2. ANS: C PTS: 1 DIF: L2 REF: 1-1 Variables and Expressions
   OBJ: 1-1.1 To write algebraic expressions
   TOP: 1-1 Problem 1 Writing Expressions With Addition and Subtraction
   KEY: algebraic expression | variable DOK: DOK 1
3. ANS: A PTS: 1 DIF: L3 REF: 1-1 Variables and Expressions
   OBJ: 1-1.1 To write algebraic expressions
   TOP: 1-1 Problem 2 Writing Expressions With Multiplication and Division
   KEY: algebraic expression | variable DOK: DOK 1
4. ANS: B PTS: 1 DIF: L3 REF: 1-1 Variables and Expressions
   OBJ: 1-1.1 To write algebraic expressions
   TOP: 1-1 Problem 2 Writing Expressions With Multiplication and Division
   KEY: algebraic expression | variable DOK: DOK 1
5. ANS: D PTS: 1 DIF: L3 REF: 1-1 Variables and Expressions
   OBJ: 1-1.1 To write algebraic expressions
   TOP: 1-1 Problem 3 Writing Expressions With Two Operations
   KEY: algebraic expression | variable DOK: DOK 1
6. ANS: C PTS: 1 DIF: L3 REF: 1-1 Variables and Expressions
   OBJ: 1-1.1 To write algebraic expressions
   TOP: 1-1 Problem 3 Writing Expressions With Two Operations
   KEY: algebraic expression | variable DOK: DOK 1
7. ANS: D PTS: 1 DIF: L3 REF: 1-1 Variables and Expressions
   OBJ: 1-1.1 To write algebraic expressions
   TOP: 1-1 Problem 3 Writing Expressions With Two Operations
   KEY: algebraic expression | variable DOK: DOK 1
8. ANS: D PTS: 1 DIF: L2 REF: 1-1 Variables and Expressions
   OBJ: 1-1.1 To write algebraic expressions
   TOP: 1-1 Problem 4 Using Words for an Expression
   KEY: algebraic expression | variable | quantity DOK: DOK 1
9. ANS: A PTS: 1 DIF: L3 REF: 1-1 Variables and Expressions
   OBJ: 1-1.1 To write algebraic expressions
   TOP: 1-1 Problem 4 Using Words for an Expression
   KEY: algebraic expression | variable | quantity DOK: DOK 1
10. ANS: B PTS: 1 DIF: L3
    REF: 1-2 Order of Operations and Evaluating Expressions
    OBJ: 1-2.2 To use the order of operations to evaluate expressions
    TOP: 1-2 Problem 2 Simplifying a Numerical Expression
    KEY: power | exponent | base | simplify | evaluate DOK: DOK 1

11. ANS: B PTS: 1 DIF: L3
REF: 1-2 Order of Operations and Evaluating Expressions
OBJ: 1-2.2 To use the order of operations to evaluate expressions
TOP: 1-2 Problem 2 Simplifying a Numerical Expression
KEY: power | exponent | base | simplify | evaluate DOK: DOK 1

12. ANS: C PTS: 1 DIF: L3
REF: 1-2 Order of Operations and Evaluating Expressions
OBJ: 1-2.2 To use the order of operations to evaluate expressions
TOP: 1-2 Problem 3 Evaluating Algebraic Expressions
KEY: power | exponent | base | simplify | evaluate DOK: DOK 1

13. ANS: B PTS: 1 DIF: L4
REF: 1-2 Order of Operations and Evaluating Expressions
OBJ: 1-2.2 To use the order of operations to evaluate expressions
TOP: 1-2 Problem 3 Evaluating Algebraic Expressions
KEY: power | exponent | base | simplify | evaluate DOK: DOK 1

14. ANS: B PTS: 1 DIF: L3
REF: 1-2 Order of Operations and Evaluating Expressions
OBJ: 1-2.2 To use the order of operations to evaluate expressions
TOP: 1-2 Problem 3 Evaluating Algebraic Expressions
KEY: power | exponent | base | simplify | evaluate DOK: DOK 1

15. ANS: D PTS: 1 DIF: L3 REF: 1-4 Properties of Real Numbers
OBJ: 1-4.1 To identify and use properties of real numbers STA: MA.912.A.3.2
TOP: 1-4 Problem 1 Identifying Properties KEY: equivalent expressions
DOK: DOK 2

16. ANS: D PTS: 1 DIF: L3 REF: 1-4 Properties of Real Numbers
OBJ: 1-4.1 To identify and use properties of real numbers STA: MA.912.A.3.2
TOP: 1-4 Problem 1 Identifying Properties KEY: equivalent expressions
DOK: DOK 2

17. ANS: C PTS: 1 DIF: L2 REF: 1-4 Properties of Real Numbers
OBJ: 1-4.1 To identify and use properties of real numbers STA: MA.912.A.3.2
TOP: 1-4 Problem 1 Identifying Properties KEY: equivalent expressions
DOK: DOK 2

18. ANS: B PTS: 1 DIF: L3 REF: 1-4 Properties of Real Numbers
OBJ: 1-4.1 To identify and use properties of real numbers STA: MA.912.A.3.2
TOP: 1-4 Problem 2 Using Properties for Mental Calculations KEY: deductive reasoning
DOK: DOK 1

19. ANS: C PTS: 1 DIF: L4 REF: 1-4 Properties of Real Numbers
OBJ: 1-4.1 To identify and use properties of real numbers STA: MA.912.A.3.2
TOP: 1-4 Problem 2 Using Properties for Mental Calculations KEY: deductive reasoning
DOK: DOK 1

20. ANS: B PTS: 1 DIF: L2
REF: 1-5 Adding and Subtracting Real Numbers
OBJ: 1-5.1 To find sums and differences of real numbers
TOP: 1-5 Problem 2 Adding Real Numbers KEY: opposites | additive inverses
DOK: DOK 1

21. ANS: D PTS: 1 DIF: L2
REF: 1-5 Adding and Subtracting Real Numbers
OBJ: 1-5.1 To find sums and differences of real numbers
TOP: 1-5 Problem 2 Adding Real Numbers KEY: opposites | additive inverses
DOK: DOK 1

22. ANS: B PTS: 1 DIF: L3
REF: 1-5 Adding and Subtracting Real Numbers
OBJ: 1-5.1 To find sums and differences of real numbers
TOP: 1-5 Problem 2 Adding Real Numbers KEY: opposites | additive inverses
DOK: DOK 1

23. ANS: B PTS: 1 DIF: L4
REF: 1-5 Adding and Subtracting Real Numbers
OBJ: 1-5.1 To find sums and differences of real numbers
TOP: 1-5 Problem 2 Adding Real Numbers KEY: opposites | additive inverses
DOK: DOK 1

24. ANS: D PTS: 1 DIF: L4
REF: 1-5 Adding and Subtracting Real Numbers
OBJ: 1-5.1 To find sums and differences of real numbers
TOP: 1-5 Problem 3 Subtracting Real Numbers KEY: opposites | additive inverses
DOK: DOK 1

25. ANS: D PTS: 1 DIF: L3
REF: 1-5 Adding and Subtracting Real Numbers
OBJ: 1-5.1 To find sums and differences of real numbers
TOP: 1-5 Problem 3 Subtracting Real Numbers KEY: opposites | additive inverses
DOK: DOK 1

26. ANS: C PTS: 1 DIF: L2
REF: 1-5 Adding and Subtracting Real Numbers
OBJ: 1-5.1 To find sums and differences of real numbers
TOP: 1-5 Problem 3 Subtracting Real Numbers KEY: opposites | additive inverses
DOK: DOK 1

27. ANS: D PTS: 1 DIF: L3
REF: 1-5 Adding and Subtracting Real Numbers
OBJ: 1-5.1 To find sums and differences of real numbers
TOP: 1-5 Problem 4 Adding and Subtracting Real Numbers KEY: opposites | additive inverses
DOK: DOK 2

28. ANS: C PTS: 1 DIF: L4
REF: 1-5 Adding and Subtracting Real Numbers
OBJ: 1-5.1 To find sums and differences of real numbers
TOP: 1-5 Problem 4 Adding and Subtracting Real Numbers KEY: opposites | additive inverses
DOK: DOK 3

29. ANS: A PTS: 1 DIF: L2
REF: 1-6 Multiplying and Dividing Real Numbers
OBJ: 1-6.1 To find products and quotients of real numbers STA: MA.912.A.3.2
TOP: 1-6 Problem 1 Multiplying Real Numbers KEY: multiplicative inverse | reciprocal
DOK: DOK 1

30. ANS: A PTS: 1 DIF: L3
REF: 1-6 Multiplying and Dividing Real Numbers
OBJ: 1-6.1 To find products and quotients of real numbers STA: MA.912.A.3.2
TOP: 1-6 Problem 1 Multiplying Real Numbers KEY: multiplicative inverse | reciprocal
DOK: DOK 1

31. ANS: B PTS: 1 DIF: L3
REF: 1-6 Multiplying and Dividing Real Numbers
OBJ: 1-6.1 To find products and quotients of real numbers STA: MA.912.A.3.2
TOP: 1-6 Problem 1 Multiplying Real Numbers KEY: multiplicative inverse | reciprocal
DOK: DOK 1

32. ANS: B PTS: 1 DIF: L3
REF: 1-6 Multiplying and Dividing Real Numbers
OBJ: 1-6.1 To find products and quotients of real numbers STA: MA.912.A.3.2
TOP: 1-6 Problem 1 Multiplying Real Numbers KEY: multiplicative inverse | reciprocal
DOK: DOK 1

33. ANS: D PTS: 1 DIF: L3 REF: 1-7 The Distributive Property
OBJ: 1-7.1 To use the Distributive Property to simplify expressions
STA: MA.912.A.3.2 TOP: 1-7 Problem 1 Simplifying Expressions
KEY: Distributive Property | coefficient | term | like terms DOK: DOK 1

34. ANS: B PTS: 1 DIF: L3 REF: 1-7 The Distributive Property
OBJ: 1-7.1 To use the Distributive Property to simplify expressions
STA: MA.912.A.3.2 TOP: 1-7 Problem 1 Simplifying Expressions
KEY: Distributive Property | coefficient | term | like terms DOK: DOK 1

35. ANS: B PTS: 1 DIF: L3 REF: 1-7 The Distributive Property
OBJ: 1-7.1 To use the Distributive Property to simplify expressions
STA: MA.912.A.3.2 TOP: 1-7 Problem 1 Simplifying Expressions
KEY: Distributive Property | coefficient | term | like terms DOK: DOK 1

36. ANS: A PTS: 1 DIF: L3 REF: 1-7 The Distributive Property
OBJ: 1-7.1 To use the Distributive Property to simplify expressions
STA: MA.912.A.3.2 TOP: 1-7 Problem 5 Combining Like Terms
KEY: Distributive Property | coefficient | term | like terms DOK: DOK 1

37. ANS: A PTS: 1 DIF: L4 REF: 1-7 The Distributive Property
OBJ: 1-7.1 To use the Distributive Property to simplify expressions
STA: MA.912.A.3.2 TOP: 1-7 Problem 5 Combining Like Terms
KEY: Distributive Property | coefficient | term | like terms DOK: DOK 1

38. ANS: D PTS: 1 DIF: L3 REF: 1-7 The Distributive Property
OBJ: 1-7.1 To use the Distributive Property to simplify expressions
STA: MA.912.A.3.2 TOP: 1-7 Problem 2 Rewriting Fraction Expressions
KEY: Distributive Property | coefficient | term | like terms DOK: DOK 1

39. ANS: C PTS: 1 DIF: L3 REF: 1-7 The Distributive Property
OBJ: 1-7.1 To use the Distributive Property to simplify expressions
STA: MA.912.A.3.2 TOP: 1-7 Problem 2 Rewriting Fraction Expressions
KEY: Distributive Property | coefficient | term | like terms DOK: DOK 1

40. ANS: D PTS: 1 DIF: L2 REF: 1-7 The Distributive Property
OBJ: 1-7.1 To use the Distributive Property to simplify expressions
STA: MA.912.A.3.2 TOP: 1-7 Problem 3 Using the Multiplication Property of -1
KEY: Distributive Property | coefficient | term | like terms DOK: DOK 1

41. ANS: D PTS: 1 DIF: L3 REF: 1-7 The Distributive Property
OBJ: 1-7.1 To use the Distributive Property to simplify expressions
STA: MA.912.A.3.2 TOP: 1-7 Problem 3 Using the Multiplication Property of -1
KEY: Distributive Property | coefficient | term | like terms DOK: DOK 1

42. ANS: A PTS: 1 DIF: L3 REF: 1-7 The Distributive Property
OBJ: 1-7.1 To use the Distributive Property to simplify expressions
STA: MA.912.A.3.2
TOP: 1-7 Problem 4 Using the Distributive Property for Mental Math
KEY: Distributive Property | coefficient | term | like terms DOK: DOK 1

43. ANS: B PTS: 1 DIF: L3 REF: 1-7 The Distributive Property
OBJ: 1-7.1 To use the Distributive Property to simplify expressions
STA: MA.912.A.3.2
TOP: 1-7 Problem 4 Using the Distributive Property for Mental Math
KEY: Distributive Property | coefficient | term | like terms DOK: DOK 1

44. ANS: A PTS: 1 DIF: L2 REF: 2-2 Solving Two-Step Equations
OBJ: 2-2.1 To solve two-step equations in one variable STA: MA.912.A.3.1
TOP: 2-2 Problem 1 Solving a Two-Step Equation DOK: DOK 1

45. ANS: B PTS: 1 DIF: L3 REF: 2-2 Solving Two-Step Equations
OBJ: 2-2.1 To solve two-step equations in one variable STA: MA.912.A.3.1
TOP: 2-2 Problem 1 Solving a Two-Step Equation DOK: DOK 1

46. ANS: A PTS: 1 DIF: L3 REF: 2-2 Solving Two-Step Equations
OBJ: 2-2.1 To solve two-step equations in one variable STA: MA.912.A.3.1
TOP: 2-2 Problem 1 Solving a Two-Step Equation DOK: DOK 1

47. ANS: B PTS: 1 DIF: L3 REF: 2-2 Solving Two-Step Equations
OBJ: 2-2.1 To solve two-step equations in one variable STA: MA.912.A.3.1
TOP: 2-2 Problem 2 Using an Equation as a Model DOK: DOK 2

48. ANS: D PTS: 1 DIF: L4 REF: 2-2 Solving Two-Step Equations
OBJ: 2-2.1 To solve two-step equations in one variable STA: MA.912.A.3.1
TOP: 2-2 Problem 2 Using an Equation as a Model DOK: DOK 2

49. ANS: C PTS: 1 DIF: L4 REF: 2-2 Solving Two-Step Equations
OBJ: 2-2.1 To solve two-step equations in one variable STA: MA.912.A.3.1
TOP: 2-2 Problem 2 Using an Equation as a Model DOK: DOK 2

50. ANS: D PTS: 1 DIF: L3 REF: 2-2 Solving Two-Step Equations
OBJ: 2-2.1 To solve two-step equations in one variable STA: MA.912.A.3.1
TOP: 2-2 Problem 3 Solving With Two Terms in the Numerator
DOK: DOK 1

51. ANS: A PTS: 1 DIF: L3 REF: 2-2 Solving Two-Step Equations
OBJ: 2-2.1 To solve two-step equations in one variable STA: MA.912.A.3.1
TOP: 2-2 Problem 3 Solving With Two Terms in the Numerator
DOK: DOK 1

52. ANS: C PTS: 1 DIF: L3 REF: 2-2 Solving Two-Step Equations
OBJ: 2-2.1 To solve two-step equations in one variable STA: MA.912.A.3.1
TOP: 2-2 Problem 4 Using Deductive Reasoning DOK: DOK 2

53. ANS: C PTS: 1 DIF: L3 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 1 Combining Like Terms DOK: DOK 1

54. ANS: C PTS: 1 DIF: L3 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 1 Combining Like Terms DOK: DOK 1

55. ANS: C PTS: 1 DIF: L4 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 1 Combining Like Terms DOK: DOK 1

56. ANS: B PTS: 1 DIF: L3 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 2 Solving a Multi-Step Equation DOK: DOK 2

57. ANS: A PTS: 1 DIF: L3 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 2 Solving a Multi-Step Equation DOK: DOK 2

58. ANS: A PTS: 1 DIF: L2 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 3 Solving an Equation Using the Distributive Property
DOK: DOK 1

59. ANS: C PTS: 1 DIF: L3 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 3 Solving an Equation Using the Distributive Property
DOK: DOK 1

60. ANS: B PTS: 1 DIF: L3 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 3 Solving an Equation Using the Distributive Property
DOK: DOK 1

61. ANS: B PTS: 1 DIF: L3 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 4 Solving an Equation that Contains Fractions
DOK: DOK 1

62. ANS: C PTS: 1 DIF: L3 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 4 Solving an Equation that Contains Fractions
DOK: DOK 1

63. ANS: B PTS: 1 DIF: L3 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 5 Solving an Equation that Contains Decimals
DOK: DOK 1

64. ANS: A PTS: 1 DIF: L3 REF: 2-3 Solving Multi-Step Equations
OBJ: 2-3.1 To solve multi-step equations in one variable STA: MA.912.A.3.1| MA.912.A.3.5
TOP: 2-3 Problem 5 Solving an Equation that Contains Decimals
DOK: DOK 1

65. ANS: C PTS: 1 DIF: L3
REF: 2-4 Solving Equations With Variables on Both Sides
OBJ: 2-4.1 To solve equations with variables on both sides
STA: MA.912.A.3.1| MA.912.A.3.2| MA.912.A.10.3
TOP: 2-4 Problem 1 Solving an Equation With Variables on Both Sides
DOK: DOK 1

66. ANS: C PTS: 1 DIF: L3
REF: 2-4 Solving Equations With Variables on Both Sides
OBJ: 2-4.1 To solve equations with variables on both sides
STA: MA.912.A.3.1| MA.912.A.3.2| MA.912.A.10.3
TOP: 2-4 Problem 1 Solving an Equation With Variables on Both Sides
DOK: DOK 1

67. ANS: D PTS: 1 DIF: L3
REF: 2-4 Solving Equations With Variables on Both Sides
OBJ: 2-4.1 To solve equations with variables on both sides
STA: MA.912.A.3.1| MA.912.A.3.2| MA.912.A.10.3
TOP: 2-4 Problem 1 Solving an Equation With Variables on Both Sides
DOK: DOK 1

68. ANS: A PTS: 1 DIF: L3
REF: 2-4 Solving Equations With Variables on Both Sides
OBJ: 2-4.1 To solve equations with variables on both sides
STA: MA.912.A.3.1| MA.912.A.3.2| MA.912.A.10.3
TOP: 2-4 Problem 2 Using an Equation With Variables on Both Sides
DOK: DOK 2

69. ANS: C PTS: 1 DIF: L3
REF: 2-4 Solving Equations With Variables on Both Sides
OBJ: 2-4.1 To solve equations with variables on both sides
STA: MA.912.A.3.1| MA.912.A.3.2| MA.912.A.10.3
TOP: 2-4 Problem 3 Solving an Equation With Grouping Symbols
DOK: DOK 1

70. ANS: A PTS: 1 DIF: L3
REF: 2-4 Solving Equations With Variables on Both Sides
OBJ: 2-4.1 To solve equations with variables on both sides
STA: MA.912.A.3.1| MA.912.A.3.2| MA.912.A.10.3
TOP: 2-4 Problem 3 Solving an Equation With Grouping Symbols
DOK: DOK 1

71. ANS: C PTS: 1 DIF: L3 REF: 2-5 Literal Equations and Formulas
OBJ: 2-5.1 To rewrite and use literal equations and formulas STA: MA.912.A.3.3
TOP: 2-5 Problem 2 Rewriting a Literal Equation With Only Variables
KEY: literal equation DOK: DOK 2

72. ANS: B PTS: 1 DIF: L4 REF: 2-5 Literal Equations and Formulas
OBJ: 2-5.1 To rewrite and use literal equations and formulas STA: MA.912.A.3.3
TOP: 2-5 Problem 2 Rewriting a Literal Equation With Only Variables
KEY: literal equation DOK: DOK 2

73. ANS: D PTS: 1 DIF: L3 REF: 2-5 Literal Equations and Formulas
OBJ: 2-5.1 To rewrite and use literal equations and formulas STA: MA.912.A.3.3
TOP: 2-5 Problem 3 Rewriting a Geometric Formula KEY: literal equation | formula
DOK: DOK 2

74. ANS: D PTS: 1 DIF: L3 REF: 2-5 Literal Equations and Formulas
OBJ: 2-5.1 To rewrite and use literal equations and formulas STA: MA.912.A.3.3
TOP: 2-5 Problem 3 Rewriting a Geometric Formula KEY: literal equation | formula
DOK: DOK 2

75. ANS: C PTS: 1 DIF: L3 REF: 2-5 Literal Equations and Formulas
OBJ: 2-5.1 To rewrite and use literal equations and formulas STA: MA.912.A.3.3
TOP: 2-5 Problem 4 Rewriting a Formula KEY: literal equation | formula
DOK: DOK 2

76. ANS: C PTS: 1 DIF: L3 REF: 2-5 Literal Equations and Formulas
OBJ: 2-5.1 To rewrite and use literal equations and formulas STA: MA.912.A.3.3
TOP: 2-5 Problem 4 Rewriting a Formula KEY: literal equation | formula
DOK: DOK 2

77. ANS: C PTS: 1 DIF: L3 REF: 2-5 Literal Equations and Formulas
OBJ: 2-5.1 To rewrite and use literal equations and formulas STA: MA.912.A.3.3
TOP: 2-5 Problem 4 Rewriting a Formula KEY: literal equation | formula
DOK: DOK 2

78. ANS: A PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.1 To find ratios and rates TOP: 2-6 Problem 1 Comparing Unit Rates
KEY: ratio | unit rate | rate DOK: DOK 2

79. ANS: C PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.1 To find ratios and rates TOP: 2-6 Problem 1 Comparing Unit Rates
KEY: ratio | rate | unit rate DOK: DOK 2

80. ANS: D PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.1 To find ratios and rates TOP: 2-6 Problem 1 Comparing Unit Rates
KEY: ratio | rate | unit rate DOK: DOK 2

81. ANS: A PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.2 To convert units and rates TOP: 2-6 Problem 2 Converting Units
KEY: conversion factor | unit analysis DOK: DOK 1

82. ANS: B PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.2 To convert units and rates TOP: 2-6 Problem 2 Converting Units
KEY: conversion factor | unit analysis DOK: DOK 1

83. ANS: A PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.2 To convert units and rates TOP: 2-6 Problem 2 Converting Units
KEY: conversion factor | unit analysis DOK: DOK 1

84. ANS: B PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.2 To convert units and rates TOP: 2-6 Problem 3 Converting Units Between Systems
KEY: conversion factor | unit analysis DOK: DOK 1

85. ANS: B PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.2 To convert units and rates TOP: 2-6 Problem 3 Converting Units Between Systems
KEY: conversion factor | unit analysis DOK: DOK 1

86. ANS: A PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.2 To convert units and rates TOP: 2-6 Problem 3 Converting Units Between Systems
KEY: conversion factor | unit analysis DOK: DOK 2

87. ANS: D PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.2 To convert units and rates TOP: 2-6 Problem 4 Converting Rates
KEY: conversion factor | unit analysis DOK: DOK 1

88. ANS: C PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.2 To convert units and rates TOP: 2-6 Problem 4 Converting Rates
KEY: conversion factor | unit analysis DOK: DOK 1

89. ANS: B PTS: 1 DIF: L3 REF: 2-6 Ratios, Rates, and Conversions
OBJ: 2-6.2 To convert units and rates TOP: 2-6 Problem 4 Converting Rates
KEY: conversion factor | unit analysis DOK: DOK 1

90. ANS: A PTS: 1 DIF: L2 REF: 2-7 Solving Proportions
OBJ: 2-7.1 To solve and apply proportions STA: MA.912.A.5.4
TOP: 2-7 Problem 2 Solving a Proportion Using the Cross Products Property
KEY: proportion | cross products | Cross Products Property DOK: DOK 1

91. ANS: D PTS: 1 DIF: L3 REF: 2-7 Solving Proportions
OBJ: 2-7.1 To solve and apply proportions STA: MA.912.A.5.4
TOP: 2-7 Problem 2 Solving a Proportion Using the Cross Products Property
KEY: proportion | cross products | Cross Products Property DOK: DOK 1

92. ANS: D PTS: 1 DIF: L2 REF: 2-7 Solving Proportions
OBJ: 2-7.1 To solve and apply proportions STA: MA.912.A.5.4
TOP: 2-7 Problem 3 Solving a Multi-Step Proportion
KEY: proportion | cross products | Cross Products Property DOK: DOK 1

93. ANS: D PTS: 1 DIF: L2 REF: 2-7 Solving Proportions
OBJ: 2-7.1 To solve and apply proportions STA: MA.912.A.5.4
TOP: 2-7 Problem 4 Using a Proportion to Solve a Problem
KEY: proportion | cross products | Cross Products Property DOK: DOK 2

94. ANS: D PTS: 1 DIF: L3 REF: 2-7 Solving Proportions
OBJ: 2-7.1 To solve and apply proportions STA: MA.912.A.5.4
TOP: 2-7 Problem 4 Using a Proportion to Solve a Problem
KEY: proportion | cross products | Cross Products Property DOK: DOK 2

95. ANS: D PTS: 1 DIF: L3 REF: 2-8 Proportions and Similar Figures
OBJ: 2-8.2 To use similar figures when measuring indirectly STA: MA.912.A.5.4
TOP: 2-8 Problem 3 Interpreting Scale Drawings
KEY: similar figures | scale drawing | scale DOK: DOK 3

96. ANS: C PTS: 1 DIF: L3 REF: 2-8 Proportions and Similar Figures
OBJ: 2-8.2 To use similar figures when measuring indirectly STA: MA.912.A.5.4
TOP: 2-8 Problem 3 Interpreting Scale Drawings
KEY: similar figures | scale drawing | scale DOK: DOK 3

97. ANS: A PTS: 1 DIF: L3 REF: 2-8 Proportions and Similar Figures
OBJ: 2-8.2 To use similar figures when measuring indirectly STA: MA.912.A.5.4
TOP: 2-8 Problem 3 Interpreting Scale Drawings
KEY: similar figures | scale | scale drawing DOK: DOK 2

98. ANS: A PTS: 1 DIF: L3 REF: 2-8 Proportions and Similar Figures
OBJ: 2-8.2 To use similar figures when measuring indirectly STA: MA.912.A.5.4
TOP: 2-8 Problem 4 Using Scale Models KEY: similar figures | scale | scale drawing
DOK: DOK 2

99. ANS: C PTS: 1 DIF: L3 REF: 2-8 Proportions and Similar Figures
OBJ: 2-8.2 To use similar figures when measuring indirectly STA: MA.912.A.5.4
TOP: 2-8 Problem 4 Using Scale Models KEY: similar figures | scale | scale model
DOK: DOK 2

100. ANS: D PTS: 1 DIF: L3
REF: 3-2 Solving Inequalities Using Addition or Subtraction
OBJ: 3-2.1 To use addition or subtraction to solve inequalities STA: MA.912.A.3.4
TOP: 3-2 Problem 1 Using the Addition Property of Inequality KEY: equivalent inequalities
DOK: DOK 1

101. ANS: A PTS: 1 DIF: L3
REF: 3-2 Solving Inequalities Using Addition or Subtraction
OBJ: 3-2.1 To use addition or subtraction to solve inequalities STA: MA.912.A.3.4
TOP: 3-2 Problem 1 Using the Addition Property of Inequality KEY: equivalent inequalities
DOK: DOK 1

102. ANS: C PTS: 1 DIF: L3
REF: 3-2 Solving Inequalities Using Addition or Subtraction
OBJ: 3-2.1 To use addition or subtraction to solve inequalities STA: MA.912.A.3.4
TOP: 3-2 Problem 1 Using the Addition Property of Inequality KEY: equivalent inequalities
DOK: DOK 1

103. ANS: B PTS: 1 DIF: L3
REF: 3-2 Solving Inequalities Using Addition or Subtraction
OBJ: 3-2.1 To use addition or subtraction to solve inequalities STA: MA.912.A.3.4
TOP: 3-2 Problem 3 Using the Subtraction Property of Inequality
KEY: equivalent inequalities DOK: DOK 1

104. ANS: D PTS: 1 DIF: L3
REF: 3-2 Solving Inequalities Using Addition or Subtraction
OBJ: 3-2.1 To use addition or subtraction to solve inequalities STA: MA.912.A.3.4
TOP: 3-2 Problem 3 Using the Subtraction Property of Inequality
KEY: equivalent inequalities DOK: DOK 1

105. ANS: A PTS: 1 DIF: L3
REF: 3-2 Solving Inequalities Using Addition or Subtraction
OBJ: 3-2.1 To use addition or subtraction to solve inequalities STA: MA.912.A.3.4
TOP: 3-2 Problem 3 Using the Subtraction Property of Inequality
KEY: equivalent inequalities DOK: DOK 1

106. ANS: C PTS: 1 DIF: L3
REF: 3-2 Solving Inequalities Using Addition or Subtraction
OBJ: 3-2.1 To use addition or subtraction to solve inequalities STA: MA.912.A.3.4
TOP: 3-2 Problem 4 Writing and Solving an Inequality KEY: equivalent inequalities
DOK: DOK 2

107. ANS: C PTS: 1 DIF: L3
REF: 3-2 Solving Inequalities Using Addition or Subtraction
OBJ: 3-2.1 To use addition or subtraction to solve inequalities STA: MA.912.A.3.4
TOP: 3-2 Problem 4 Writing and Solving an Inequality KEY: equivalent inequalities
DOK: DOK 2

108. ANS: B PTS: 1 DIF: L3
REF: 3-3 Solving Inequalities Using Multiplication or Division
OBJ: 3-3.1 To use multiplication or division to solve inequalities
STA: MA.912.A.3.4| MA.912.A.10.3 TOP: 3-3 Problem 1 Multiplying by a Positive Number
DOK: DOK 1

109. ANS: D PTS: 1 DIF: L3
REF: 3-3 Solving Inequalities Using Multiplication or Division
OBJ: 3-3.1 To use multiplication or division to solve inequalities
STA: MA.912.A.3.4| MA.912.A.10.3 TOP: 3-3 Problem 1 Multiplying by a Positive Number
DOK: DOK 1

110. ANS: D PTS: 1 DIF: L3
REF: 3-3 Solving Inequalities Using Multiplication or Division
OBJ: 3-3.1 To use multiplication or division to solve inequalities
STA: MA.912.A.3.4| MA.912.A.10.3 TOP: 3-3 Problem 2 Multiplying by a Negative Number
DOK: DOK 1

111. ANS: D PTS: 1 DIF: L3
REF: 3-3 Solving Inequalities Using Multiplication or Division
OBJ: 3-3.1 To use multiplication or division to solve inequalities
STA: MA.912.A.3.4| MA.912.A.10.3 TOP: 3-3 Problem 3 Dividing by a Positive Number
DOK: DOK 2

112. ANS: B PTS: 1 DIF: L3
REF: 3-3 Solving Inequalities Using Multiplication or Division
OBJ: 3-3.1 To use multiplication or division to solve inequalities
STA: MA.912.A.3.4| MA.912.A.10.3 TOP: 3-3 Problem 4 Dividing by a Negative Number
DOK: DOK 1

113. ANS: D PTS: 1 DIF: L3
REF: 3-3 Solving Inequalities Using Multiplication or Division
OBJ: 3-3.1 To use multiplication or division to solve inequalities
STA: MA.912.A.3.4| MA.912.A.10.3 TOP: 3-3 Problem 4 Dividing by a Negative Number
DOK: DOK 1

114. ANS: A PTS: 1 DIF: L4 REF: 3-4 Solving Multi-Step Inequalities
OBJ: 3-4.1 To solve multi-step inequalities STA: MA.912.A.3.4| MA.912.A.3.5
TOP: 3-4 Problem 1 Using More Than One Step DOK: DOK 1

115. ANS: A PTS: 1 DIF: L3 REF: 3-4 Solving Multi-Step Inequalities
OBJ: 3-4.1 To solve multi-step inequalities STA: MA.912.A.3.4| MA.912.A.3.5
TOP: 3-4 Problem 1 Using More Than One Step DOK: DOK 1

116. ANS: C PTS: 1 DIF: L2 REF: 3-4 Solving Multi-Step Inequalities
OBJ: 3-4.1 To solve multi-step inequalities STA: MA.912.A.3.4| MA.912.A.3.5
TOP: 3-4 Problem 3 Using the Distributive Property DOK: DOK 1

117. ANS: D PTS: 1 DIF: L3 REF: 3-4 Solving Multi-Step Inequalities
OBJ: 3-4.1 To solve multi-step inequalities STA: MA.912.A.3.4| MA.912.A.3.5
TOP: 3-4 Problem 3 Using the Distributive Property DOK: DOK 1

118. ANS: C PTS: 1 DIF: L3 REF: 3-4 Solving Multi-Step Inequalities
OBJ: 3-4.1 To solve multi-step inequalities STA: MA.912.A.3.4| MA.912.A.3.5
TOP: 3-4 Problem 4 Solving an Inequality With Variables on Both Sides
DOK: DOK 1

119. ANS: C PTS: 1 DIF: L2 REF: 3-4 Solving Multi-Step Inequalities
OBJ: 3-4.1 To solve multi-step inequalities STA: MA.912.A.3.4| MA.912.A.3.5
TOP: 3-4 Problem 4 Solving an Inequality With Variables on Both Sides
DOK: DOK 1

120. ANS: A PTS: 1 DIF: L3 REF: 3-6 Compound Inequalities
OBJ: 3-6.1 To solve and graph inequalities containing the word and
STA: MA.912.A.3.4 TOP: 3-6 Problem 1 Writing a Compound Inequality
KEY: compound inequality DOK: DOK 2

121. ANS: C PTS: 1 DIF: L3 REF: 3-6 Compound Inequalities
OBJ: 3-6.1 To solve and graph inequalities containing the word and
STA: MA.912.A.3.4 TOP: 3-6 Problem 1 Writing a Compound Inequality
KEY: compound inequality DOK: DOK 2

122. ANS: C PTS: 1 DIF: L3 REF: 3-6 Compound Inequalities
OBJ: 3-6.1 To solve and graph inequalities containing the word and
STA: MA.912.A.3.4
TOP: 3-6 Problem 2 Solving a Compound Inequality Involving And
KEY: compound inequality DOK: DOK 1

123. ANS: D PTS: 1 DIF: L3 REF: 3-6 Compound Inequalities
OBJ: 3-6.1 To solve and graph inequalities containing the word and
STA: MA.912.A.3.4
TOP: 3-6 Problem 2 Solving a Compound Inequality Involving And
KEY: compound inequality DOK: DOK 1

124. ANS: A PTS: 1 DIF: L3 REF: 3-6 Compound Inequalities
OBJ: 3-6.2 To solve and graph inequalities containing the word or
STA: MA.912.A.3.4
TOP: 3-6 Problem 4 Solving a Compound Inequality Involving Or
KEY: compound inequality DOK: DOK 1

125. ANS: A PTS: 1 DIF: L2 REF: 7-1 Zero and Negative Exponents
OBJ: 7-1.1 To simplify expressions involving zero and negative exponents
STA: MA.912.A.4.1 TOP: 7-1 Problem 1 Simplifying Powers
DOK: DOK 1

126. ANS: A PTS: 1 DIF: L2 REF: 7-1 Zero and Negative Exponents
OBJ: 7-1.1 To simplify expressions involving zero and negative exponents
STA: MA.912.A.4.1 TOP: 7-1 Problem 1 Simplifying Powers
DOK: DOK 1

127. ANS: B PTS: 1 DIF: L3 REF: 7-1 Zero and Negative Exponents
OBJ: 7-1.1 To simplify expressions involving zero and negative exponents
STA: MA.912.A.4.1 TOP: 7-1 Problem 1 Simplifying Powers
DOK: DOK 1

128. ANS: A PTS: 1 DIF: L2 REF: 7-1 Zero and Negative Exponents
OBJ: 7-1.1 To simplify expressions involving zero and negative exponents
STA: MA.912.A.4.1 TOP: 7-1 Problem 2 Simplifying Exponential Expressions
DOK: DOK 1

129. ANS: A PTS: 1 DIF: L3 REF: 7-1 Zero and Negative Exponents
OBJ: 7-1.1 To simplify expressions involving zero and negative exponents
STA: MA.912.A.4.1 TOP: 7-1 Problem 2 Simplifying Exponential Expressions
DOK: DOK 1

130. ANS: B PTS: 1 DIF: L3 REF: 7-1 Zero and Negative Exponents
OBJ: 7-1.1 To simplify expressions involving zero and negative exponents
STA: MA.912.A.4.1 TOP: 7-1 Problem 2 Simplifying Exponential Expressions
DOK: DOK 1

131. ANS: A PTS: 1 DIF: L2 REF: 7-1 Zero and Negative Exponents
OBJ: 7-1.1 To simplify expressions involving zero and negative exponents
STA: MA.912.A.4.1 TOP: 7-1 Problem 3 Evaluating an Exponential Expression
DOK: DOK 1

132. ANS: D PTS: 1 DIF: L3 REF: 7-2 Scientific Notation
OBJ: 7-2.1 To write numbers in scientific and standard notation
TOP: 7-2 Problem 2 Writing a Number in Scientific Notation KEY: scientific notation
DOK: DOK 1

133. ANS: B PTS: 1 DIF: L3 REF: 7-2 Scientific Notation
OBJ: 7-2.1 To write numbers in scientific and standard notation
TOP: 7-2 Problem 2 Writing a Number in Scientific Notation KEY: scientific notation
DOK: DOK 1

134. ANS: B PTS: 1 DIF: L3 REF: 7-2 Scientific Notation
OBJ: 7-2.1 To write numbers in scientific and standard notation
TOP: 7-2 Problem 3 Writing a Number in Standard Notation KEY: scientific notation
DOK: DOK 1

135. ANS: D PTS: 1 DIF: L3 REF: 7-2 Scientific Notation
OBJ: 7-2.1 To write numbers in scientific and standard notation
TOP: 7-2 Problem 3 Writing a Number in Standard Notation KEY: scientific notation
DOK: DOK 1

136. ANS: A PTS: 1 DIF: L2
REF: 7-3 Multiplying Powers With the Same Base
OBJ: 7-3.1 To multiply powers with the same base STA: MA.912.A.4.1
TOP: 7-3 Problem 1 Multiplying Powers DOK: DOK 1

137. ANS: B PTS: 1 DIF: L3
REF: 7-3 Multiplying Powers With the Same Base
OBJ: 7-3.1 To multiply powers with the same base STA: MA.912.A.4.1
TOP: 7-3 Problem 1 Multiplying Powers DOK: DOK 1

138. ANS: B PTS: 1 DIF: L4
REF: 7-3 Multiplying Powers With the Same Base
OBJ: 7-3.1 To multiply powers with the same base STA: MA.912.A.4.1
TOP: 7-3 Problem 1 Multiplying Powers DOK: DOK 1

139. ANS: A PTS: 1 DIF: L3
REF: 7-3 Multiplying Powers With the Same Base
OBJ: 7-3.1 To multiply powers with the same base STA: MA.912.A.4.1
TOP: 7-3 Problem 1 Multiplying Powers DOK: DOK 1

140. ANS: B PTS: 1 DIF: L2
REF: 7-3 Multiplying Powers With the Same Base
OBJ: 7-3.1 To multiply powers with the same base STA: MA.912.A.4.1
TOP: 7-3 Problem 2 Multiplying Powers in Algebraic Expressions
DOK: DOK 1

141. ANS: D PTS: 1 DIF: L4
REF: 7-3 Multiplying Powers With the Same Base
OBJ: 7-3.1 To multiply powers with the same base STA: MA.912.A.4.1
TOP: 7-3 Problem 2 Multiplying Powers in Algebraic Expressions
DOK: DOK 1

142. ANS: B PTS: 1 DIF: L2
REF: 7-3 Multiplying Powers With the Same Base
OBJ: 7-3.1 To multiply powers with the same base STA: MA.912.A.4.1
TOP: 7-3 Problem 3 Multiplying Numbers in Scientific Notation
DOK: DOK 1

143. ANS: A PTS: 1 DIF: L3
REF: 7-3 Multiplying Powers With the Same Base
OBJ: 7-3.1 To multiply powers with the same base STA: MA.912.A.4.1
TOP: 7-3 Problem 3 Multiplying Numbers in Scientific Notation
DOK: DOK 1

144. ANS: B PTS: 1 DIF: L3
REF: 7-3 Multiplying Powers With the Same Base
OBJ: 7-3.1 To multiply powers with the same base STA: MA.912.A.4.1
TOP: 7-3 Problem 3 Multiplying Numbers in Scientific Notation
DOK: DOK 1

145. ANS: B PTS: 1 DIF: L3
REF: 7-3 Multiplying Powers With the Same Base
OBJ: 7-3.1 To multiply powers with the same base STA: MA.912.A.4.1
TOP: 7-3 Problem 4 Multiplying Numbers in Scientific Notation
DOK: DOK 2

146. ANS: C PTS: 1 DIF: L3
REF: 7-3 Multiplying Powers With the Same Base
OBJ: 7-3.1 To multiply powers with the same base STA: MA.912.A.4.1
TOP: 7-3 Problem 4 Multiplying Numbers in Scientific Notation
DOK: DOK 2

147. ANS: D PTS: 1 DIF: L2
REF: 7-4 More Multiplication Properties of Exponents OBJ: 7-4.1 To raise a power to a power
STA: MA.912.A.4.1 TOP: 7-4 Problem 1 Simplifying a Power Raised to a Power
DOK: DOK 1

148. ANS: C PTS: 1 DIF: L3
REF: 7-4 More Multiplication Properties of Exponents OBJ: 7-4.1 To raise a power to a power
STA: MA.912.A.4.1 TOP: 7-4 Problem 1 Simplifying a Power Raised to a Power
DOK: DOK 1

149. ANS: C PTS: 1 DIF: L3
REF: 7-4 More Multiplication Properties of Exponents OBJ: 7-4.1 To raise a power to a power
STA: MA.912.A.4.1 TOP: 7-4 Problem 2 Simplifying an Expression With Powers
DOK: DOK 1

150. ANS: B PTS: 1 DIF: L4
REF: 7-4 More Multiplication Properties of Exponents OBJ: 7-4.1 To raise a power to a power
STA: MA.912.A.4.1 TOP: 7-4 Problem 2 Simplifying an Expression With Powers
DOK: DOK 1

151. ANS: D PTS: 1 DIF: L3
REF: 7-4 More Multiplication Properties of Exponents OBJ: 7-4.2 To raise a product to a power
STA: MA.912.A.4.1 TOP: 7-4 Problem 3 Simplifying a Product Raised to a Power
DOK: DOK 1

152. ANS: C PTS: 1 DIF: L3
REF: 7-4 More Multiplication Properties of Exponents OBJ: 7-4.2 To raise a product to a power
STA: MA.912.A.4.1 TOP: 7-4 Problem 3 Simplifying a Product Raised to a Power
DOK: DOK 1

153. ANS: B PTS: 1 DIF: L4
REF: 7-4 More Multiplication Properties of Exponents OBJ: 7-4.2 To raise a product to a power
STA: MA.912.A.4.1 TOP: 7-4 Problem 4 Simplifying an Expression With Products
DOK: DOK 1

154. ANS: A PTS: 1 DIF: L4
REF: 7-4 More Multiplication Properties of Exponents OBJ: 7-4.2 To raise a product to a power
STA: MA.912.A.4.1 TOP: 7-4 Problem 4 Simplifying an Expression With Products
DOK: DOK 1

155. ANS: C PTS: 1 DIF: L4
REF: 7-4 More Multiplication Properties of Exponents OBJ: 7-4.2 To raise a product to a power
STA: MA.912.A.4.1
TOP: 7-4 Problem 5 Raising a Number in Scientific Notation to a Power
DOK: DOK 1

156. ANS: C PTS: 1 DIF: L4
REF: 7-4 More Multiplication Properties of Exponents OBJ: 7-4.2 To raise a product to a power
STA: MA.912.A.4.1
TOP: 7-4 Problem 5 Raising a Number in Scientific Notation to a Power
DOK: DOK 1

157. ANS: B PTS: 1 DIF: L2
REF: 7-5 Division Properties of Exponents
OBJ: 7-5.1 To divide powers with the same base STA: MA.912.A.4.1
TOP: 7-5 Problem 1 Dividing Algebraic Expressions DOK: DOK 1

158. ANS: A PTS: 1 DIF: L3
REF: 7-5 Division Properties of Exponents
OBJ: 7-5.1 To divide powers with the same base STA: MA.912.A.4.1
TOP: 7-5 Problem 1 Dividing Algebraic Expressions DOK: DOK 1

159. ANS: D PTS: 1 DIF: L3
REF: 7-5 Division Properties of Exponents
OBJ: 7-5.1 To divide powers with the same base STA: MA.912.A.4.1
TOP: 7-5 Problem 1 Dividing Algebraic Expressions DOK: DOK 1

160. ANS: A PTS: 1 DIF: L4
REF: 7-5 Division Properties of Exponents
OBJ: 7-5.1 To divide powers with the same base STA: MA.912.A.4.1
TOP: 7-5 Problem 2 Dividing Numbers in Scientific Notation DOK: DOK 2

161. ANS: A PTS: 1 DIF: L2
REF: 7-5 Division Properties of Exponents OBJ: 7-5.2 To raise a quotient to a power
STA: MA.912.A.4.1 TOP: 7-5 Problem 3 Raising a Quotient to a Power
DOK: DOK 1

162. ANS: C PTS: 1 DIF: L3
REF: 7-5 Division Properties of Exponents OBJ: 7-5.2 To raise a quotient to a power
STA: MA.912.A.4.1 TOP: 7-5 Problem 3 Raising a Quotient to a Power
DOK: DOK 1

163. ANS: B PTS: 1 DIF: L3
REF: 7-5 Division Properties of Exponents OBJ: 7-5.2 To raise a quotient to a power
STA: MA.912.A.4.1 TOP: 7-5 Problem 3 Raising a Quotient to a Power
DOK: DOK 1

164. ANS: A PTS: 1 DIF: L3
REF: 7-5 Division Properties of Exponents OBJ: 7-5.2 To raise a quotient to a power
STA: MA.912.A.4.1 TOP: 7-5 Problem 4 Simplifying an Exponential Expression
DOK: DOK 1

165. ANS: B PTS: 1 DIF: L3
REF: 7-5 Division Properties of Exponents OBJ: 7-5.2 To raise a quotient to a power
STA: MA.912.A.4.1 TOP: 7-5 Problem 4 Simplifying an Exponential Expression
DOK: DOK 1

166. ANS: A PTS: 1 DIF: L3 REF: 7-6 Exponential Functions
OBJ: 7-6.1 To evaluate and graph exponential functions
TOP: 7-6 Problem 2 Evaluating an Exponential Function KEY: exponential function
DOK: DOK 1

167. ANS: A PTS: 1 DIF: L3 REF: 7-6 Exponential Functions
OBJ: 7-6.1 To evaluate and graph exponential functions
TOP: 7-6 Problem 2 Evaluating an Exponential Function KEY: exponential function
DOK: DOK 1

168. ANS: B PTS: 1 DIF: L2 REF: 1-2 Properties of Real Numbers
OBJ: 1-2.2 To identify properties of real numbers
TOP: 1-2 Problem 4 Identifying Properties of Real Numbers KEY:
DOK: DOK 1

169. ANS: C PTS: 1 DIF: L2 REF: 1-2 Properties of Real Numbers
OBJ: 1-2.2 To identify properties of real numbers
TOP: 1-2 Problem 4 Identifying Properties of Real Numbers KEY:
DOK: DOK 1

170. ANS: A PTS: 1 DIF: L2 REF: 1-3 Algebraic Expressions
OBJ: 1-3.1 To evaluate algebraic expressions
TOP: 1-3 Problem 3 Evaluating Algebraic Expressions KEY: evaluate
DOK: DOK 1

171. ANS: B PTS: 1 DIF: L4 REF: 1-3 Algebraic Expressions
OBJ: 1-3.1 To evaluate algebraic expressions
TOP: 1-3 Problem 3 Evaluating Algebraic Expressions KEY: evaluate
DOK: DOK 1

172. ANS: B PTS: 1 DIF: L3 REF: 1-3 Algebraic Expressions
OBJ: 1-3.1 To evaluate algebraic expressions
TOP: 1-3 Problem 3 Evaluating Algebraic Expressions KEY: evaluate
DOK: DOK 1

173. ANS: B PTS: 1 DIF: L2 REF: 1-3 Algebraic Expressions
OBJ: 1-3.2 To simplify algebraic expressions
TOP: 1-3 Problem 5 Simplifying Algebraic Expressions KEY: like terms
DOK: DOK 2

174. ANS: A PTS: 1 DIF: L3 REF: 1-3 Algebraic Expressions
OBJ: 1-3.2 To simplify algebraic expressions
TOP: 1-3 Problem 5 Simplifying Algebraic Expressions KEY: like terms
DOK: DOK 2

175. ANS: A PTS: 1 DIF: L3 REF: 1-4 Solving Equations
OBJ: 1-4.1 To solve equations STA: MA.912.A.10.3
TOP: 1-4 Problem 2 Solving a Multi-Step Equation
KEY: equation | solution of an equation | inverse operations DOK: DOK 1

176. ANS: D PTS: 1 DIF: L2 REF: 1-4 Solving Equations
OBJ: 1-4.1 To solve equations STA: MA.912.A.10.3
TOP: 1-4 Problem 2 Solving a Multi-Step Equation
KEY: equation | solution of an equation | inverse operations DOK: DOK 1

177. ANS: C PTS: 1 DIF: L3 REF: 1-4 Solving Equations
OBJ: 1-4.1 To solve equations STA: MA.912.A.10.3
TOP: 1-4 Problem 2 Solving a Multi-Step Equation
KEY: equation | solution of an equation | inverse operations DOK: DOK 1

178. ANS: B PTS: 1 DIF: L2 REF: 1-4 Solving Equations
OBJ: 1-4.1 To solve equations STA: MA.912.A.10.3
TOP: 1-4 Problem 2 Solving a Multi-Step Equation
KEY: equation | solution of an equation | inverse operations DOK: DOK 1

179. ANS: A PTS: 1 DIF: L3 REF: 1-4 Solving Equations
OBJ: 1-4.2 To solve problems by writing equations STA: MA.912.A.10.3
TOP: 1-4 Problem 3 Using an Equation to Solve a Problem KEY: equation | solution of an equation
DOK: DOK 2

180. ANS: B PTS: 1 DIF: L3 REF: 1-4 Solving Equations
OBJ: 1-4.2 To solve problems by writing equations STA: MA.912.A.10.3
TOP: 1-4 Problem 3 Using an Equation to Solve a Problem KEY: equation | solution of an equation
DOK: DOK 2

181. ANS: C PTS: 1 DIF: L3 REF: 1-4 Solving Equations
OBJ: 1-4.2 To solve problems by writing equations STA: MA.912.A.10.3
TOP: 1-4 Problem 3 Using an Equation to Solve a Problem KEY: equation | solution of an equation
DOK: DOK 2

182. ANS: A PTS: 1 DIF: L3 REF: 1-4 Solving Equations
OBJ: 1-4.1 To solve equations STA: MA.912.A.10.3
TOP: 1-4 Problem 4 Equations with No Solutions and Identities
KEY: equation | identity DOK: DOK 1

183. ANS: C PTS: 1 DIF: L3 REF: 1-4 Solving Equations
OBJ: 1-4.1 To solve equations STA: MA.912.A.10.3
TOP: 1-4 Problem 4 Equations with No Solutions and Identities
KEY: equation DOK: DOK 1

184. ANS: D PTS: 1 DIF: L3 REF: 1-4 Solving Equations
OBJ: 1-4.1 To solve equations STA: MA.912.A.10.3
TOP: 1-4 Problem 5 Solving a Literal Equation KEY: equation | literal equation
DOK: DOK 2

185. ANS: D PTS: 1 DIF: L3 REF: 1-4 Solving Equations
OBJ: 1-4.1 To solve equations STA: MA.912.A.10.3
TOP: 1-4 Problem 5 Solving a Literal Equation KEY: equation | literal equation
DOK: DOK 2

186. ANS: B PTS: 1 DIF: L2 REF: 1-5 Solving Inequalities
OBJ: 1-5.1 To solve and graph inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 1 Writing an Inequality from a Sentence
KEY: compound inequality | word problem | problem solving DOK: DOK 1

187. ANS: D PTS: 1 DIF: L3 REF: 1-5 Solving Inequalities
OBJ: 1-5.1 To solve and graph inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 1 Writing an Inequality from a Sentence
KEY: compound inequality | word problem | problem solving DOK: DOK 1

188. ANS: C PTS: 1 DIF: L2 REF: 1-5 Solving Inequalities
OBJ: 1-5.1 To solve and graph inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 2 Solving and Graphing an Inequality DOK: DOK 2

189. ANS: C PTS: 1 DIF: L2 REF: 1-5 Solving Inequalities
OBJ: 1-5.1 To solve and graph inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 2 Solving and Graphing an Inequality DOK: DOK 2

190. ANS: A PTS: 1 DIF: L3 REF: 1-5 Solving Inequalities
OBJ: 1-5.1 To solve and graph inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 2 Solving and Graphing an Inequality DOK: DOK 2

191. ANS: A PTS: 1 DIF: L3 REF: 1-5 Solving Inequalities
OBJ: 1-5.1 To solve and graph inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 3 Using an Inequality DOK: DOK 2

192. ANS: A PTS: 1 DIF: L3 REF: 1-5 Solving Inequalities
OBJ: 1-5.1 To solve and graph inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 3 Using an Inequality DOK: DOK 2

193. ANS: C PTS: 1 DIF: L3 REF: 1-5 Solving Inequalities
OBJ: 1-5.1 To solve and graph inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 4 No Solution or All Real Numbers as Solution
KEY: DOK: DOK 2

194. ANS: A PTS: 1 DIF: L3 REF: 1-5 Solving Inequalities
OBJ: 1-5.1 To solve and graph inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 4 No Solution or All Real Numbers as Solution
KEY: DOK: DOK 2

195. ANS: D PTS: 1 DIF: L3 REF: 1-5 Solving Inequalities
OBJ: 1-5.2 To write and solve compound inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 5 Solving an AND Inequality KEY: compound inequality
DOK: DOK 2

196. ANS: A PTS: 1 DIF: L3 REF: 1-5 Solving Inequalities
OBJ: 1-5.2 To write and solve compound inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 6 Solving an OR Inequality KEY: compound inequality
DOK: DOK 2

197. ANS: B PTS: 1 DIF: L3 REF: 1-5 Solving Inequalities
OBJ: 1-5.2 To write and solve compound inequalities STA: MA.912.A.10.3
TOP: 1-5 Problem 5 Solving an AND Inequality KEY: compound inequality
DOK: DOK 2