

NAME _____

Students entering Math 7 Summer Packet 2019

The purpose of this packet is for you to practice your math skills and review your knowledge of concepts covered in previous math classes. **(NOTE: If lost, the packet can be found on the district's website.)**

The packet will be collected on Friday, September 6th. **ALL work must be shown in the space provided on the packet.** The packet will be given a score and count as your **FIRST TEST** grade for Math 7.

If you encounter any difficulties with any of the problems, use KhanAcademy.org or use your Math 6 notebook to assist in completing all problems.

Thank you in advance for completing this packet. I look forward to working with you next year.

Mrs. Gaskill

NOTE: Failure to submit the packet on Friday, September 6th will result in a 10 point deduction each school day that it is late. Failure to submit the packet by Friday, September 13th will result in a "0" for your summer packet grade.

SUMMER MATH PACKET (students entering 7th Grade in September)
ALL WORK MUST BE SHOWN

Numeric Response

Find the value of the power.

1. 2^7

2. 7^3

Evaluate the expression.

3. $\frac{3(2+4)}{2}$

4. $2^4 - 3(7 - 5) + 7$

5. $3(2.3 + 3.7) - 15 \div 3$

6. You buy 1 sweater, 3 T-shirts, and 2 pairs of jeans online. What is your total cost?

Item	Cost per item
Sweater	\$17
T-shirt	\$14
Jeans	\$32

Add or subtract. Write the answer in simplest form.

7. $\frac{2}{7} + \frac{2}{3}$

8. $\frac{3}{5} - \frac{1}{4}$

9. You are filling identical fruit bowls using 36 apples and 48 oranges. What is the greatest number of bowls that you can fill using all of the fruit?

10. An electrician charges \$322 for 7 hours of work. How much does the electrician charge per hour?
11. You have 64 inches of blue fabric and 96 inches of green fabric. You want to cut the fabric into pieces of equal length with no leftovers. What is the greatest length of the pieces that you can make?
12. Two families are each driving 825 miles in two different cars. The Romano family car gets an average of 33 miles per gallon, and the Sanlin family car gets an average of 25 miles per gallon. If gas costs \$4.00 per gallon, how much more will the Sanlin family spend for gas?
13. Find the number represented by the prime factorization.
 $2^2 \cdot 5^3 \cdot 7$
14. There is $\frac{3}{4}$ of a box of cereal remaining. You eat $\frac{2}{5}$ of the remaining cereal. What fraction of the box do you eat?

Add or subtract.

15. $7.43 + 9.25$

16. $28.1 - 21.97$

Multiply.

17. 7.26×8

18. 3.2×0.45

Divide.

19. $6.21 \div 3$

20. $0.0225 \div 0.03$

21. How much will a bag of chips and a drink cost you when you have a coupon for 75 cents off the total price?

Item	Price
Chips	\$1.29
Drink	\$0.89

22. Beatrice bought 8 sandwiches for \$40.72. Each sandwich was the same price. What was the price, in dollars, of each sandwich?
23. A real estate company buys 125 properties that each contain 1.27 acres of land. How many acres of land does the company buy?

Evaluate the expression when $a = 4$, $b = 2$, and $c = 8$.

24. $a + 7$

25. bc

26. $\frac{c}{a}$

Evaluate the expression when $x = 4$ and $y = 1$.

27. $12 - x$

28. $\frac{18}{x}$

29. $x + y - 4$

30. $2(8 - y)$

Write the fraction or mixed number as a percent.

31. $2\frac{1}{5}$

32. $\frac{6}{25}$

Find the percent of the number.

33. 20% of 90

34. 140% of 15

35. 12% of 30

Write a positive or negative integer that represents the situation.

36. You get a \$1 raise.

37. Sarah lost 3 points on her test.

38. A swimmer is 4 feet below the surface of the water.

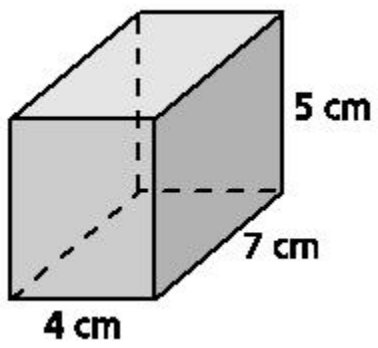
Find the absolute value.

39. $|8|$

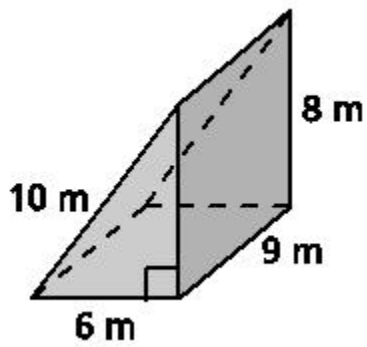
40. $|-3|$

Find the surface area of the prism.

41.

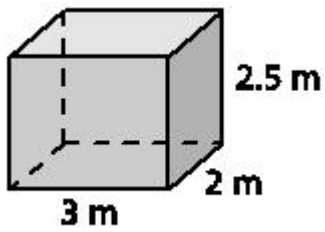


42.



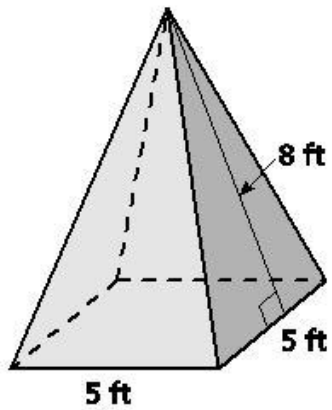
Find the volume of the prism.

43.



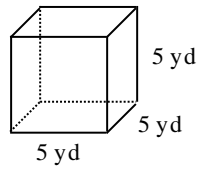
Find the surface area of the pyramid. The side lengths of the base are equal.

44.



Find the surface area of the figure.

45.



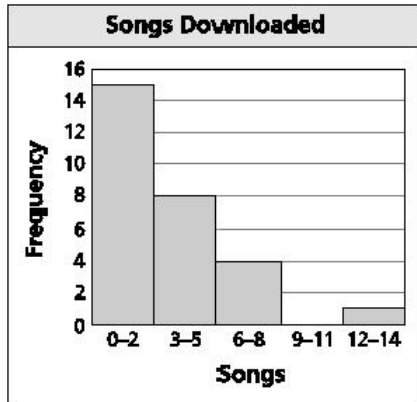
46. A container is shaped like a square pyramid. The side length of the base is 10 inches, and the height of one of the triangular faces is 16.2 inches. If the base has an area of 100 square inches, find the total surface area of the container.

Find the value of x .

47. Mean is 0; $-11.5, -6, 4, 6.5, x$

48. Median is 43; $34, 36, x, 68$

Use the histogram that shows the numbers of songs downloaded per week by students in a class.



49. How many students are in the class?

Use the following data that show the numbers of text messages sent by some students.

31, 50, 58, 1, 25, 46, 48, 55, 28, 34, 33, 45, 53, 46, 47

50. How many students sent less than 40 text messages?

51. Find the mean of the data.

52. Find the median of the data.

53. Find the mode of the data

54. Find the range of the data.

55. Which data value is the outlier?

Short Answer

Find the GCF of the numbers using prime factorizations.

1. 17, 39

2. What is the prime factorization of the number 60?

Complete the statement using $<$, $>$, or $=$.

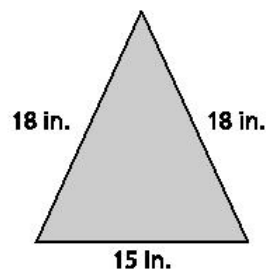
3. $2\frac{2}{5}$ _____ $\frac{60}{25}$

4. $\frac{5}{9}$ — $\frac{3}{5}$

Find the LCM of the numbers using lists of multiples.

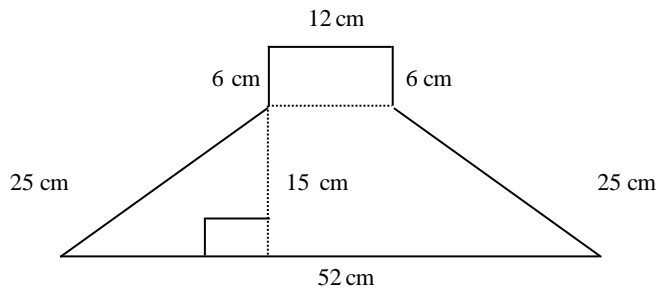
5. 4, 7

6. What is the perimeter of the triangle below?



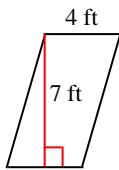
Find the area of the figure.

7.

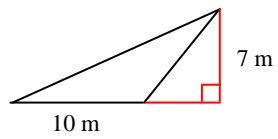


Find the area.

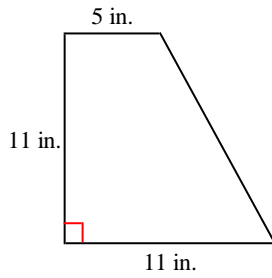
8.



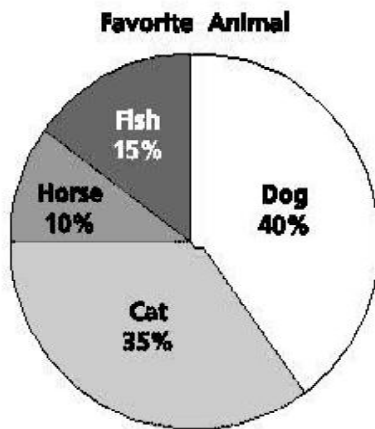
9.



10.



11. A survey asked 80 students to name their favorite animal. The results are shown in the circle graph.



You survey 20 more students. How many do you expect to say cats are their favorite animal?

12. Twenty cars go past your house during a 5-minute period. At that rate, how many cars will go past your house during a 15-minute period?

13. You build four scale models of the Empire State Building. The smallest model is 3 centimeters tall. The height of each model is three times the height of the previous model. Write a power to represent the height of the tallest model. Then find the height.

Add or subtract. Write the answer in simplest form.

14. $4\frac{5}{6} - 2\frac{7}{8}$

15. $1\frac{3}{8} + 4\frac{1}{2}$

16. $\frac{7}{8} + \frac{3}{10}$

17. A football coach divides 42 players into equal groups for a warm up drill. Each group should have at least 5 players but no more than 8 players. What are the possible group sizes?

18. Is 12 a perfect square? Is 144 a perfect square? Explain.

Multiply. Write the answer in simplest form.

19. $2\frac{4}{9} \times 3\frac{1}{2}$

20. $3 \times \frac{8}{9}$

Divide. Write the answer in simplest form.

21. $\frac{5}{8} \div \frac{1}{2}$

22. $3\frac{3}{16} \div 2\frac{5}{6}$

23. In your marble collection, $\frac{4}{7}$ of the marbles are blue and $\frac{4}{21}$ of the marbles are red. How many times more blue marbles do you have than red marbles?
24. A $10\frac{2}{3}$ -inch long pipe is cut into 8 equal length pieces. How long is each piece?
25. Your friend is 1.2 times taller than you. Your friend is 64.5 inches tall. How tall are you?
26. The family room in your house is $6\frac{1}{2}$ yards long and $5\frac{3}{4}$ yards wide.
- How many square feet do you need to carpet the room?
 - Carpet costs \$16 per square yard. How much will it cost to buy carpet for the family room?
27. Which deal is a better buy?



Write the expression using exponents.

28. $r \cdot r \cdot r \cdot r \cdot r \cdot r \cdot r$

29. $4 \cdot d \cdot d \cdot d$

Complete the table.

30.

x	$4x - 1$
1	
3	
5	

Write the phrase as an expression.

31. the sum of 25 and 14

32. a number y divided by 7

33. a number x multiplied by 3

34. 4 less than a number w

Use the Distributive Property to simplify the expression.

35. $7(x + 3)$

36. $6(8 - x)$

Simplify the expression.

37. $5a + 7 - 3a - 2$

38. $3.4n + 9.6 - 2.1n$

39. $6a - 2b + 3(a - b)$

Write the ratio. Explain what the ratio means.

40. bottles to cans



Write a unit rate for the situation.

41. 250 words in 5 minutes

42. \$1.98 for 6 bananas

43. Decide whether the following rates are equivalent.

12 pages in 20 minutes

20 pages in 32 minutes

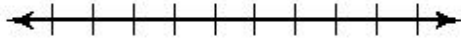
44. In a class, 60% of the students are girls. There are 18 girls in the class.

a. How many students are in the class?

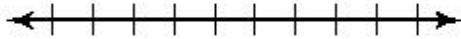
b. How many boys are in the class?

Graph the integer and its opposite.

45. -1



46. 4



Complete the statement using < or >.

47. -3 ____ 1

48. -6 ____ -8

Order the integers from least to greatest.

49. $2, -3, 0, 4, -1$

50. $4, -7, 0, -1, -3$

Complete the statement using < or >.

51. $-\frac{5}{6}$ _____ $-\frac{3}{4}$

52. -2.32 _____ -2.64

53. $-1\frac{1}{3}$ _____ $-1\frac{2}{5}$

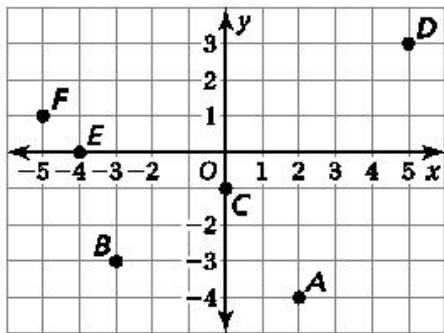
Complete the statement using <, >, or =.

54. 3 _____ $|-4|$

55. $|-5|$ _____ $|-2|$

56. $|-6|$ ____ 6

Use the figure for the question(s) below.



57. Write an ordered pair corresponding to the point.

- | | |
|------------|------------|
| a. Point A | d. Point D |
| b. Point B | e. Point E |
| c. Point C | f. Point F |

58. Which point is located in Quadrant III?

Write the word sentence as an equation.

59. 3 increased by a number x is 9

60. The product of a number y and 3 is 6.

61. The area of a rectangular banner is 120 square feet. The banner is 40 feet long. Write an equation you can use to find the height h of the banner.

62. The sum of a number a and 17 is 21.

63. A number b divided by 6 equals 15.

64. 13 is 3 less than a number z .

Solve the equation. Check your solution.

65. $u + 3 = 7$

66. $a - \frac{3}{4} = \frac{1}{8}$

67. $15 \times b = 60$

68. $7 + m = 7$

69. $5z = 60$

70. $a \div 6 = 7$

71. $27 = \frac{a}{0.8}$

Tell whether the ordered pair is a solution of the equation.

72. $y = 9x$; (4, 36)

Write the word sentence as an inequality.

73. A number y divided by 6 is no more than 2.

74. A number n is at least 10.

75. 15 is more than a number x .

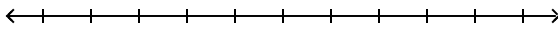
76. A number b divided by 3 is less than 3.

Tell whether the given value is a solution of the inequality.

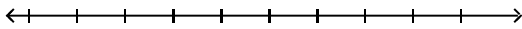
77. $x + 3 > 12; x = 5$

Graph the inequality on a number line.

78. $y < -1$

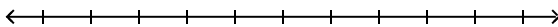


79. $m \leq 1$

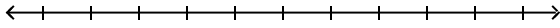


Solve the inequality. Graph the solution.

80. $10 + c \geq 11$

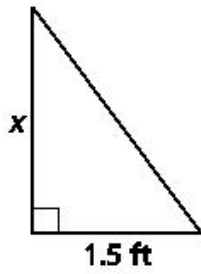


81. $\frac{x}{4} > 5$

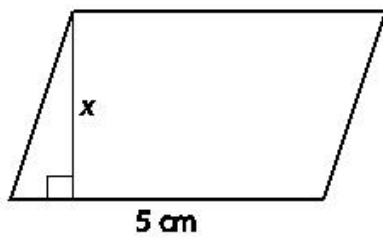


Solve for x . Check your answer.

82. Area = 1.5 ft^2

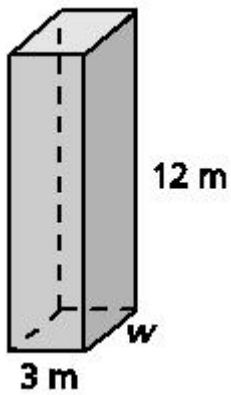


83. Area = 15 cm^2

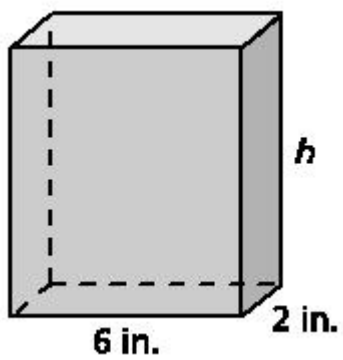


Write and solve an equation to find the missing dimension of the prism.

84. Volume = 144 m^3



85. Volume = 84 in.^3



SUMMER MATH PACKET (students entering 7th Grade in September)
ALL WORK MUST BE SHOWN

Answer Section

NUMERIC RESPONSE

1. ANS: 128

PTS: 1 DIF: Level 1 REF: Ch 1 Quiz 1 NAT: 6.EE.1

KEY: exponent | power | evaluate MSC: Knowledge

2. ANS: 343

PTS: 1 DIF: Level 1 REF: Ch 1 Test A NAT: 6.EE.1

KEY: exponent | power MSC: Knowledge

3. ANS: 9

PTS: 1 DIF: Level 2 REF: Ch 1 Quiz 1 NAT: 6.EE.1 | 6.NS.2

KEY: order of operations | evaluate MSC: Comprehension

4. ANS: 17

PTS: 1 DIF: Level 2 REF: Ch 1 Test B NAT: 6.EE.1

KEY: order of operations | evaluate MSC: Comprehension

5. ANS: 13

PTS: 1 DIF: Level 1 REF: Section 1.3 NAT: 6.EE.1

KEY: order of operations | evaluate | decimals MSC: Knowledge

6. ANS: \$123

PTS: 1 DIF: Level 2 REF: Ch 1 Quiz 1 NAT: 6.EE.1

KEY: order of operations | application MSC: Application

7. ANS: 20/21

PTS: 1 DIF: Level 2 REF: Ch 1 Quiz 2 NAT: 6.NS.4

KEY: sum | fractions MSC: Comprehension

8. ANS: 7/20

PTS: 1 DIF: Level 2 REF: Ch 1 Test A NAT: 6.NS.4

KEY: difference | fractions MSC: Comprehension

9. ANS: 12 bowls

PTS: 1 DIF: Level 2 REF: Ch 1 Quiz 2 NAT: 6.NS.4

KEY: greatest common factor | GCF | application MSC: Application

10. ANS: \$46

PTS: 1 DIF: Level 1 REF: Ch 1 Test A NAT: 6.NS.2

KEY: application MSC: Application

11. ANS: 32 inches

PTS: 1 DIF: Level 2 REF: Ch 1 Test B NAT: 6.NS.4
KEY: application | GCF | greatest common factor MSC: Application
12. ANS: \$32.00

PTS: 1 DIF: Level 3 REF: Section 1.1 NAT: 6.NS.2
KEY: whole numbers | division | remainder MSC: Application
13. ANS: 3500

PTS: 1 DIF: Level 2 REF: Section 1.4 NAT: 6.NS.4
KEY: prime factorization | whole numbers | evaluate MSC: Knowledge
14. ANS: 3/10

PTS: 1 DIF: Level 2 REF: Ch 2 Quiz 1 NAT: 6.NS.1
KEY: fractions | product MSC: Application
15. ANS: 16.68

PTS: 1 DIF: Level 1 REF: Ch 2 Quiz 2 NAT: 6.NS.3
KEY: decimals | sum MSC: Knowledge
16. ANS: 6.13

PTS: 1 DIF: Level 1 REF: Ch 2 Quiz 2 NAT: 6.NS.3
KEY: decimals | difference MSC: Knowledge
17. ANS: 58.08

PTS: 1 DIF: Level 1 REF: Ch 2 Quiz 2 NAT: 6.NS.3
KEY: decimals | product MSC: Knowledge
18. ANS: 1.44

PTS: 1 DIF: Level 1 REF: Ch 2 Quiz 2 NAT: 6.NS.3
KEY: decimals | product MSC: Knowledge
19. ANS: 2.07

PTS: 1 DIF: Level 1 REF: Ch 2 Quiz 2 NAT: 6.NS.3
KEY: decimals | quotient MSC: Knowledge
20. ANS: 0.75

PTS: 1 DIF: Level 1 REF: Ch 2 Test B NAT: 6.NS.3
KEY: decimals | quotient MSC: Knowledge
21. ANS: \$1.43

PTS: 1 DIF: Level 2 REF: Ch 2 Quiz 2 NAT: 6.NS.3
KEY: decimals | sum | difference MSC: Application
22. ANS:
\$5.09

Common error: The student sets up a division algorithm like $8 \overline{)40.72}$. The student then ignores place value and splits the dividend into two 2-digit numbers and divides both 40 and 72 by 8, getting an answer of 5.9.

PTS: 1 DIF: Level 2 REF: Ch 2 Standards Assessment

23. NAT: 6.NS.3 KEY: decimals | quotient MSC: Application
ANS: 158.75 acres
24. PTS: 1 DIF: Level 2 REF: Ch 2 Test B NAT: 6.NS.3
KEY: decimals | product MSC: Application
ANS: 11
25. PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 1 NAT: 6.EE.2c
KEY: evaluate | algebraic expression MSC: Knowledge
ANS: 16
26. PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 1 NAT: 6.EE.2c
KEY: evaluate | algebraic expression MSC: Knowledge
ANS: 2
27. PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 1 NAT: 6.EE.2c
KEY: evaluate | algebraic expression MSC: Knowledge
ANS: 8
28. PTS: 1 DIF: Level 1 REF: Ch 3 Test A NAT: 6.EE.2c
KEY: evaluate | algebraic expression MSC: Knowledge
ANS: 3
29. PTS: 1 DIF: Level 1 REF: Ch 3 Test B NAT: 6.EE.2c
KEY: evaluate | algebraic expression MSC: Knowledge
ANS: 7
30. PTS: 1 DIF: Level 1 REF: Ch 3 Test B NAT: 6.EE.2c
KEY: evaluate | algebraic expression MSC: Knowledge
ANS: 6
31. PTS: 1 DIF: Level 1 REF: Ch 3 Test B NAT: 6.EE.2c
KEY: evaluate | algebraic expression MSC: Knowledge
ANS: 220%
32. PTS: 1 DIF: Level 1 REF: Ch 5 Quiz 2 NAT: 6.RP.3c
KEY: percent | fractions MSC: Knowledge
ANS: 24%
33. PTS: 1 DIF: Level 1 REF: Ch 5 Test B NAT: 6.RP.3c
KEY: percent | fractions MSC: Knowledge
ANS: 18
34. PTS: 1 DIF: Level 1 REF: Ch 5 Quiz 2 NAT: 6.RP.3c
KEY: percent | fractions MSC: Knowledge
ANS: 21
35. PTS: 1 DIF: Level 1 REF: Ch 5 Quiz 2 NAT: 6.RP.3c
KEY: percent | fractions MSC: Knowledge
ANS: 3.6

- PTS: 1 DIF: Level 1 REF: Ch 5 Test B NAT: 6.RP.3c
KEY: percent | fractions MSC: Knowledge
36. ANS: 1
- PTS: 1 DIF: Level 1 REF: Ch 6 Quiz 1 NAT: 6.NS.5
KEY: integers | positive numbers MSC: Knowledge
37. ANS: -3
- PTS: 1 DIF: Level 1 REF: Ch 6 Test A NAT: 6.NS.5
KEY: integers | negative numbers MSC: Knowledge
38. ANS: -4
- PTS: 1 DIF: Level 1 REF: Ch 6 Test B NAT: 6.NS.5
KEY: integers | positive numbers MSC: Knowledge
39. ANS: 8
- PTS: 1 DIF: Level 1 REF: Ch 6 Quiz 2 NAT: 6.NS.7c
KEY: absolute value MSC: Knowledge
40. ANS: 3
- PTS: 1 DIF: Level 1 REF: Ch 6 Quiz 2 NAT: 6.NS.7c
KEY: absolute value MSC: Knowledge
41. ANS: 166 cm^2
- PTS: 1 DIF: Level 1 REF: Ch 8 Quiz 1 NAT: 6.G.4
KEY: solid | prism | surface area MSC: Knowledge
42. ANS: 264 m^2
- PTS: 1 DIF: Level 1 REF: Ch 8 Quiz 1 NAT: 6.G.4
KEY: solid | prism | surface area MSC: Comprehension
43. ANS: 15 m^3
- PTS: 1 DIF: Level 1 REF: Ch 8 Test A NAT: 6.G.2
KEY: prism | volume MSC: Knowledge
44. ANS: 105 ft^2
- PTS: 1 DIF: Level 1 REF: Ch 8 Test A NAT: 6.G.4
KEY: pyramid | surface area MSC: Knowledge
45. ANS: 150 yd^2
- PTS: 1 DIF: Level 1 REF: Section 8.2 NAT: 6.G.4
KEY: surface area | prism MSC: Knowledge
46. ANS: 424
- PTS: 1 DIF: Level 2 REF: Section 8.3 NAT: 6.G.4
KEY: pyramid | surface area MSC: Application
47. ANS: 7
- PTS: 1 DIF: Level 2 REF: Section 9.3 NAT: 6.SP.2 | 6.SP.3 | 6.SP.5c

- KEY: mean | data MSC: Comprehension
48. ANS: 50
- PTS: 1 DIF: Level 2 REF: Section 9.3 NAT: 6.SP.2 | 6.SP.3 | 6.SP.5c
KEY: median | data MSC: Comprehension
49. ANS: 28 students
- PTS: 1 DIF: Level 2 REF: Ch 10 Test A
NAT: 6.SP.4 | 6.SP.2 | 6.SP.5a KEY: histogram MSC: Application
50. ANS: 6 students
- PTS: 1 DIF: Level 1 REF: Ch 10 Test B
NAT: 6.SP.4 | 6.SP.5a KEY: stem-and-leaf plot
MSC: Comprehension
51. ANS: 40
- PTS: 1 DIF: Level 1 REF: Ch 10 Test B
NAT: 6.SP.4 | 6.SP.2 | 6.SP.5c KEY: stem-and-leaf plot | mean
MSC: Comprehension
52. ANS: 46
- PTS: 1 DIF: Level 1 REF: Ch 10 Test B
NAT: 6.SP.4 | 6.SP.5c | 6.SP.2 KEY: stem-and-leaf plot | median
MSC: Comprehension
53. ANS: 46
- PTS: 1 DIF: Level 1 REF: Ch 10 Test B
NAT: 6.SP.4 | 6.SP.2 KEY: stem-and-leaf plot | mode
MSC: Comprehension
54. ANS: 57
- PTS: 1 DIF: Level 1 REF: Ch 10 Test B
NAT: 6.SP.4 | 6.SP.2 KEY: stem-and-leaf plot | range
MSC: Comprehension
55. ANS: 1
- PTS: 1 DIF: Level 1 REF: Ch 10 Test B
NAT: 6.SP.4 | 6.SP.5c KEY: stem-and-leaf plot | outlier
MSC: Comprehension

SHORT ANSWER

1. ANS:
1
- PTS: 1 DIF: Level 1 REF: Section 1.5 NAT: 6.NS.4
KEY: greatest common factor | GCF | whole numbers MSC: Knowledge
2. ANS:
 $2^2 \cdot 3 \cdot 5$

PTS: 1 DIF: Level 1 REF: Ch 1 Standards Assessment
NAT: 6.NS.4 KEY: prime factorization MSC: Comprehension

3. ANS:
=

PTS: 1 DIF: Level 1 REF: Extension 1.6
NAT: 6.NS.4 KEY: fractions | compare | least common denominator | LCD
MSC: Comprehension

4. ANS:
<

PTS: 1 DIF: Level 1 REF: Extension 1.6
NAT: 6.NS.4 KEY: fractions | compare | least common denominator | LCD
MSC: Comprehension

5. ANS:
28

PTS: 1 DIF: Level 1 REF: Section 1.6 NAT: 6.NS.4
KEY: least common multiple | LCM | whole numbers MSC: Knowledge

6. ANS:
51 in.

PTS: 1 DIF: Level 2 REF: Ch 2 Standards Assessment
NAT: 6.NS.2 KEY: perimeter | whole numbers MSC: Comprehension

7. ANS:
 552 cm^2

PTS: 1 DIF: Level 1 REF: Extension 4.3
NAT: 6.EE.2c | 6.G.1 KEY: area | composite figure
MSC: Knowledge

8. ANS:
 28 ft^2

PTS: 1 DIF: Level 1 REF: Section 4.1 NAT: 6.G.1
KEY: area | parallelogram MSC: Knowledge

9. ANS:
 35 m^2

PTS: 1 DIF: Level 2 REF: Section 4.2 NAT: 6.G.1
KEY: area | triangle MSC: Knowledge

10. ANS:
 88 in.^2

PTS: 1 DIF: Level 1 REF: Section 4.3 NAT: 6.G.1
KEY: area | trapezoid MSC: Knowledge

11. ANS:
7

PTS: 1 DIF: Level 2 REF: Ch 6 Standards Assessment

12. NAT: 6.RP.3c KEY: percent MSC: Application
ANS:
60
13. PTS: 1 DIF: Level 2 REF: Ch 6 Standards Assessment
NAT: 6.RP.3b KEY: rate MSC: Application
ANS:
 $3^4 = 81 \text{ cm}$
14. PTS: 1 DIF: Level 2 REF: Ch 1 Quiz 1 NAT: 6.EE.1
KEY: power | application MSC: Application
ANS:
 $\frac{47}{24}$ or $1\frac{23}{24}$
15. PTS: 1 DIF: Level 2 REF: Ch 1 Quiz 2 NAT: 6.NS.4
KEY: difference | fractions MSC: Comprehension
ANS:
 $5\frac{7}{8}$
16. PTS: 1 DIF: Level 2 REF: Ch 1 Test A NAT: 6.NS.4
KEY: sum | fractions MSC: Comprehension
ANS:
 $1\frac{7}{40}$
17. PTS: 1 DIF: Level 2 REF: Ch 1 Test B NAT: 6.NS.4
KEY: sum | fractions MSC: Comprehension
ANS:
6 players, 7 players
18. PTS: 1 DIF: Level 2 REF: Ch 1 Quiz 2 NAT: 6.NS.4
KEY: greatest common factor | GCF | application MSC: Analysis
ANS:
no; yes; 12 is not the square of a whole number, so it is not a perfect square. $144 = 12^2$, so it is a perfect square.
19. PTS: 1 DIF: Level 1 REF: Section 1.2 NAT: 6.EE.1
KEY: concept check | perfect square MSC: Knowledge
ANS:
 $8\frac{5}{9}$
20. PTS: 1 DIF: Level 2 REF: Ch 2 Quiz 1 NAT: 6.NS.1
KEY: fractions | product MSC: Knowledge
ANS:
 $2\frac{2}{3}$

- PTS: 1 DIF: Level 1 REF: Ch 2 Test A NAT: 6.NS.1
KEY: fractions | product MSC: Knowledge
21. ANS:
 $1\frac{1}{4}$
- PTS: 1 DIF: Level 1 REF: Ch 2 Quiz 1 NAT: 6.NS.1
KEY: fractions | quotient MSC: Knowledge
22. ANS:
 $1\frac{1}{8}$
- PTS: 1 DIF: Level 2 REF: Ch 2 Test A NAT: 6.NS.1
KEY: fractions | quotient MSC: Knowledge
23. ANS:
3 times more
- PTS: 1 DIF: Level 2 REF: Ch 2 Quiz 1 NAT: 6.NS.1
KEY: fractions | product | mixed numbers MSC: Application
24. ANS:
 $1\frac{1}{3}$ in.
- PTS: 1 DIF: Level 2 REF: Ch 2 Quiz 1 NAT: 6.NS.1
KEY: fractions | quotient | mixed numbers MSC: Application
25. ANS:
53.75 in.
- PTS: 1 DIF: Level 2 REF: Ch 2 Quiz 2 NAT: 6.NS.3
KEY: decimals | quotient MSC: Application
26. ANS:
a. $37\frac{3}{8}$ yd²
b. \$598
- PTS: 1 DIF: Level 2 REF: Ch 2 Test B NAT: 6.NS.3
KEY: decimals | area MSC: Application
27. ANS:
6 for \$24.96
- PTS: 1 DIF: Level 2 REF: Ch 2 Test B NAT: 6.NS.3
KEY: decimals | quotient MSC: Analysis
28. ANS:
 r^6
- PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 1 NAT: 6.EE.2c
KEY: algebraic expression MSC: Knowledge
29. ANS:

$$4d^3$$

PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 1 NAT: 6.EE.2c
KEY: algebraic expression MSC: Knowledge

30. ANS:

x	$4x - 1$
1	3
3	11
5	19

PTS: 1 DIF: Level 2 REF: Ch 3 Quiz 1 NAT: 6.EE.2c
KEY: algebraic expression | evaluate MSC: Comprehension

31. ANS:
 $25 + 14$

PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 1 NAT: 6.EE.2a
KEY: numerical expression MSC: Knowledge

32. ANS:
 $y, 7$

PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 1 NAT: 6.EE.2a
KEY: algebraic expression MSC: Knowledge

33. ANS:
 $x \cdot 3$

PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 1 NAT: 6.EE.2a
KEY: algebraic expression MSC: Knowledge

34. ANS:
 $w - 4$

PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 1 NAT: 6.EE.2a
KEY: algebraic expression MSC: Knowledge

35. ANS:
 $7x + 21$

PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 2 NAT: 6.EE.2b | 6.EE.3
KEY: Distributive Property MSC: Knowledge

36. ANS:
 $48 - 6x$

PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 2 NAT: 6.EE.2b | 6.EE.3
KEY: Distributive Property MSC: Knowledge

37. ANS:
 $2a + 5$

PTS: 1 DIF: Level 1 REF: Ch 3 Quiz 2 NAT: 6.EE.3 | 6.EE.4
KEY: Distributive Property | like terms MSC: Knowledge

38. ANS:

$$1.3n + 9.6$$

PTS: 1 DIF: Level 1 REF: Ch 3 Test A NAT: 6.EE.3 | 6.EE.4
KEY: like terms | algebraic expression MSC: Knowledge

39. ANS:
 $9a - 5b$

PTS: 1 DIF: Level 1 REF: Ch 3 Test B NAT: 6.EE.3 | 6.EE.4
KEY: like terms | algebraic expression MSC: Knowledge

40. ANS:
2 : 5; There are 2 bottles for every 5 cans.

PTS: 1 DIF: Level 1 REF: Ch 5 Quiz 1 NAT: 6.RP.1
KEY: ratio MSC: Knowledge

41. ANS:
50 words per minute

PTS: 1 DIF: Level 1 REF: Ch 5 Quiz 1 NAT: 6.RP.2
KEY: unit rate MSC: Knowledge

42. ANS:
\$0.33 per banana

PTS: 1 DIF: Level 1 REF: Ch 5 Quiz 1 NAT: 6.RP.2
KEY: unit rate MSC: Knowledge

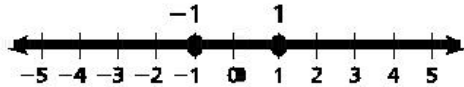
43. ANS:
no

PTS: 1 DIF: Level 2 REF: Ch 5 Quiz 1 NAT: 6.RP.3a
KEY: unit rate | ratio MSC: Comprehension

44. ANS:
a. 30 students
b. 12 boys

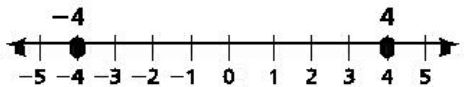
PTS: 1 DIF: Level 2 REF: Ch 5 Test A NAT: 6.RP.3c
KEY: percent MSC: Application

45. ANS:



PTS: 1 DIF: Level 1 REF: Ch 6 Quiz 1 NAT: 6.NS.5 | 6.NS.6a | 6.NS.6c
KEY: integers | opposites MSC: Knowledge

46. ANS:



PTS: 1 DIF: Level 1 REF: Ch 6 Quiz 1 NAT: 6.NS.5 | 6.NS.6a | 6.NS.6c
KEY: integers | opposites MSC: Knowledge

47. ANS:

<

PTS: 1 DIF: Level 1 REF: Ch 6 Quiz 1 NAT: 6.NS.7a
KEY: integers MSC: Knowledge
48. ANS:
>

PTS: 1 DIF: Level 1 REF: Ch 6 Quiz 1 NAT: 6.NS.7a
KEY: integers MSC: Knowledge
49. ANS:
-3, -1, 0, 2, 4

PTS: 1 DIF: Level 2 REF: Ch 6 Quiz 1 NAT: 6.NS.7a
KEY: integers MSC: Comprehension
50. ANS:
-7, -3, -1, 0, 4

PTS: 1 DIF: Level 2 REF: Ch 6 Test A NAT: 6.NS.7a
KEY: integers MSC: Comprehension
51. ANS:
<

PTS: 1 DIF: Level 1 REF: Ch 6 Quiz 1 NAT: 6.NS.7a
KEY: rational numbers MSC: Knowledge
52. ANS:
>

PTS: 1 DIF: Level 1 REF: Ch 6 Quiz 1 NAT: 6.NS.7a
KEY: rational numbers MSC: Knowledge
53. ANS:
>

PTS: 1 DIF: Level 1 REF: Ch 6 Test B NAT: 6.NS.7a
KEY: rational numbers MSC: Knowledge
54. ANS:
<

PTS: 1 DIF: Level 1 REF: Ch 6 Quiz 2 NAT: 6.NS.7c
KEY: absolute value MSC: Knowledge
55. ANS:
>

PTS: 1 DIF: Level 1 REF: Ch 6 Quiz 2 NAT: 6.NS.7c
KEY: absolute value MSC: Knowledge
56. ANS:
=

PTS: 1 DIF: Level 1 REF: Ch 6 Test A NAT: 6.NS.7c
KEY: absolute value MSC: Knowledge
57. ANS:

- a. (4, 1)
- b. (-2, 3)
- c. (1, 0)
- d. (3, -2)
- e. (0, -4)
- f. (-1, -2)

- PTS: 1 DIF: Level 1 REF: Ch 6 Test A NAT: 6.NS.6b | 6.NS.6c
 KEY: coordinate plane | ordered pair MSC: Knowledge
58. ANS:
 Point F
- PTS: 1 DIF: Level 1 REF: Ch 6 Test A NAT: 6.NS.6b
 KEY: coordinate plane | ordered pair | quadrants MSC: Knowledge
59. ANS:
 $3 + x = 9$
- PTS: 1 DIF: Level 1 REF: Ch 7 Quiz 1 NAT: 6.EE.6
 KEY: equation MSC: Knowledge
60. ANS:
 $y \times 3 = 6$
- PTS: 1 DIF: Level 1 REF: Ch 7 Quiz 1 NAT: 6.EE.6
 KEY: equation MSC: Knowledge
61. ANS:
 $120 = 40h$
- PTS: 1 DIF: Level 2 REF: Ch 7 Test B NAT: 6.EE.6
 KEY: equation MSC: Application
62. ANS:
 $a + 17 = 21$
- PTS: 1 DIF: Level 1 REF: Ch 7 Test B NAT: 6.EE.6
 KEY: equation MSC: Knowledge
63. ANS:
 $b \div 6 = 15$
- PTS: 1 DIF: Level 1 REF: Ch 7 Test B NAT: 6.EE.6
 KEY: equation MSC: Knowledge
64. ANS:
 $13 = z - 3$
- PTS: 1 DIF: Level 1 REF: Ch 7 Test B NAT: 6.EE.6
 KEY: equation MSC: Knowledge
65. ANS:
 $u = 4$
- PTS: 1 DIF: Level 1 REF: Ch 7 Quiz 1 NAT: 6.EE.7
 KEY: equation | solution (of an equation) | Addition Property of Equality
 MSC: Knowledge

66. ANS:

$$a = \frac{7}{8}$$

PTS: 1 DIF: Level 1 REF: Ch 7 Quiz 1 NAT: 6.EE.7

KEY: equation | solution (of an equation) | Addition Property of Equality

MSC: Knowledge

67. ANS:

$$b = 4$$

PTS: 1 DIF: Level 1 REF: Ch 7 Quiz 1 NAT: 6.EE.7

KEY: equation | solution (of an equation) | Multiplication Property of Equality

MSC: Knowledge

68. ANS:

$$m = 0$$

PTS: 1 DIF: Level 1 REF: Ch 7 Test A NAT: 6.EE.7

KEY: equation | solution (of an equation) | Subtraction Property of Equality

MSC: Knowledge

69. ANS:

$$z = 12$$

PTS: 1 DIF: Level 1 REF: Ch 7 Test A NAT: 6.EE.7

KEY: equation | solution (of an equation) | Division Property of Equality

MSC: Knowledge

70. ANS:

$$a = 42$$

PTS: 1 DIF: Level 1 REF: Ch 7 Test A NAT: 6.EE.7

KEY: equation | solution (of an equation) | Multiplication Property of Equality

MSC: Knowledge

71. ANS:

$$a = 21.6$$

PTS: 1 DIF: Level 1 REF: Ch 7 Test B NAT: 6.EE.7

KEY: equation | solution (of an equation) | Multiplication Property of Equality

MSC: Knowledge

72. ANS:

yes

PTS: 1 DIF: Level 1 REF: Ch 7 Quiz 1 NAT: 6.EE.9 | 6.RP.3a

KEY: equation in two variables | solution of an equation in two variables

MSC: Knowledge

73. ANS:

$$y + 6 \leq 2$$

PTS: 1 DIF: Level 1 REF: Ch 7 Quiz 2 NAT: 6.EE.8

KEY: inequality MSC: Knowledge

74. ANS:

$$n^3 10$$

PTS: 1 DIF: Level 1 REF: Ch 7 Test A NAT: 6.EE.8
KEY: inequality MSC: Knowledge

75. ANS:
 $15 > x$

PTS: 1 DIF: Level 1 REF: Ch 7 Test A NAT: 6.EE.8
KEY: inequality MSC: Knowledge

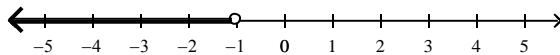
76. ANS:
 $\frac{b}{3} < 3$

PTS: 1 DIF: Level 1 REF: Ch 7 Test B NAT: 6.EE.8
KEY: inequality MSC: Knowledge

77. ANS:
no

PTS: 1 DIF: Level 1 REF: Ch 7 Quiz 2 NAT: 6.EE.5
KEY: inequality | solution of an inequality MSC: Knowledge

78. ANS:



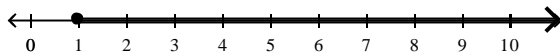
PTS: 1 DIF: Level 1 REF: Ch 7 Quiz 2 NAT: 6.EE.5 | 6.EE.8
KEY: inequality | solution of an inequality MSC: Knowledge

79. ANS:



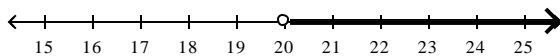
PTS: 1 DIF: Level 1 REF: Ch 7 Test A NAT: 6.EE.5 | 6.EE.8
KEY: inequality | solution of an inequality MSC: Knowledge

80. ANS:
 $c \geq 1$;



PTS: 1 DIF: Level 1 REF: Ch 7 Quiz 2 NAT: 6.EE.5 | 6.EE.8
KEY: inequality | solution of an inequality | Subtraction Property of Inequality
MSC: Knowledge

81. ANS:
 $x > 20$;



PTS: 1 DIF: Level 1 REF: Ch 7 Quiz 2 NAT: 6.EE.5 | 6.EE.8
KEY: inequality | solution of an inequality | Multiplication Property of Inequality
MSC: Knowledge

82. ANS:

$$1.5 = \frac{1}{2}(1.5)x; 2 \text{ ft}$$

PTS: 1 DIF: Level 2 REF: Ch 7 Test B NAT: 6.EE.7

KEY: equation | solution (of an equation) | Division Property of Equality

MSC: Application

83. ANS:

$$15 = 5x; 3 \text{ cm}$$

PTS: 1 DIF: Level 2 REF: Ch 7 Test B NAT: 6.EE.7

KEY: equation | solution (of an equation) | Division Property of Equality

MSC: Application

84. ANS:

$$3 \bullet w \bullet 12 = 144; 4 \text{ m}$$

PTS: 1 DIF: Level 2 REF: Ch 8 Quiz 2 NAT: 6.G.2

KEY: prism | volume

MSC: Comprehension

85. ANS:

$$(6)(2)h = 84; 7 \text{ in.}$$

PTS: 1 DIF: Level 2 REF: Ch 8 Quiz 2 NAT: 6.G.2

KEY: prism | volume

MSC: Comprehension