

Summer 2018

Dear 7th grade math student:

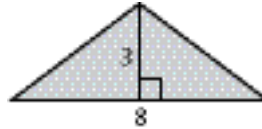
Along with practicing your basic facts (times tables) over the summer, please work on the enclosed packet. It contains a number of math computation and skills review problems. They are concepts with which you should be familiar. In 7th grade you will build upon the knowledge you already have in these particular areas. Even though this packet will not be collected for a grade, it is extremely helpful for your success in Pre-Algebra class. An answer key is included in order for you to check your work.

Have a wonderful summer,
The York Catholic Math Department

PRE-ALG Summer Packet

Simplify the expression. Identify the properties used.

1. $4(x - 3)$ 2. $(3 \cdot x) \cdot 7$
3. Use a formula to find the area of the figure.

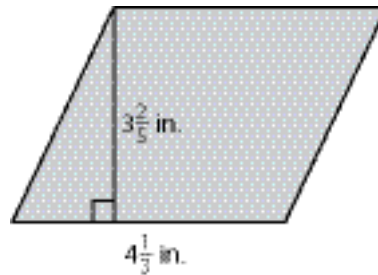


4. Tickets to a basketball game cost \$4 for adults and \$2 for children. Write an expression that gives the total cost for a adults and c children to attend the game. What is the total cost for a family of 2 adults and 3 children to attend the game?

Perform the indicated operation.

5. $\frac{7}{9} \times \frac{6}{5}$ 6. 2.35×4 7. $3\frac{1}{8} \times 2\frac{4}{9}$ 8. 0.35×1.2
9. $\frac{3}{5} \div \frac{1}{4}$ 10. $2\frac{1}{4} \div \frac{3}{8}$ 11. $3.6 \div 3$ 12. $0.25 \overline{)7.38}$

13. Find the area of the parallelogram.



Write the decimal as a fraction or mixed number in simplest form.

14. 0.6 15. 3.36 16. 0.325

Write the fraction as a decimal.

17. $\frac{3}{5}$ 18. $\frac{3}{8}$ 19. $\frac{31}{25}$

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____

Summer Packet (continued)

20. A recipe for a batch of 3 dozen chocolate chip cookies calls for 3 cups of flour, 1 cup of sugar, and 2 cups of chocolate chips. How much of each ingredient should be used to make 2 dozen cookies?

Estimate by rounding.

21. 6.3×7.2

22. $12\frac{1}{8} \div 2\frac{3}{4}$

23. 24% of 102

24. A twelve-pack of juice costs \$4.20. An eighteen-pack costs \$5.40. Which is the better buy?

Write the fraction or decimal as a percent.

25. $\frac{3}{8}$

26. 0.76

27. $\frac{6}{5}$

28. 3.25

29. Chris, Mary Beth, and Allison are discussing the number of oranges grown in Florida. Chris says that approximately 14.6% of the world's oranges are grown in Florida, Mary Beth says that 292 out of every 2000 oranges are grown in Florida, and Allison says that 0.146 of the world's oranges are grown in Florida. Who is correct? Explain your reasoning.

30. Order 42%, $\frac{5}{12}$, and 0.425 from least to greatest.

31. A pizza shop offers 30% off the price of a large pizza every Tuesday night. If the regular price is \$25, what is the discounted price?

32. Write the ratio of basketballs to footballs as a fraction in simplest form.



Answers

20. _____

21. _____

22. _____

23. _____

24. _____

25. _____

26. _____

27. _____

28. _____

29. _____

30. _____

31. _____

32. _____

Summer Packet (continued)

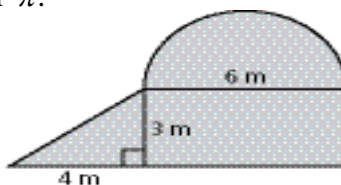
33. You run 6 miles in 1 hour. At this rate, how long will it take you to run a marathon (approximately 26 miles)?

34. Determine the mean, median, mode, and range for the data.

3, 8, 6, 6, 6, 4, 9, 9, 12

35. Katie makes 70% of her shots from the free-throw line. If she makes 14 free-throw shots in a weekend tournament, how many shots did she attempt?

36. Find the area of the figure. Use 3.14 for π .



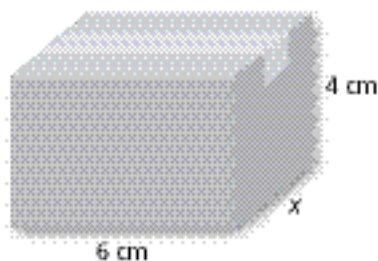
37. A farmer builds a fence to enclose a rectangular pasture. He uses 160 feet of fence. Find the total area of the pasture if it is 50 feet long.

Solve the equation.

38. $2s + 3 = 14s$

39. $c + 4c = 15$

40. Write and solve an equation to find the width of the box if its volume is 96 cubic centimeters.



Answers

33. _____

34. _____

35. _____

36. _____

37. _____

38. _____

39. _____

40. _____

41. _____

42. _____

43. _____

44. _____

45. a. **See left.**

b. _____

c. _____

PRE-ALG Summer Packet (continued)

Write the word sentence as an inequality (use $<$, $>$, \leq , or \geq).

41. A number t is less than 7.

42. A number m is at least -3 .

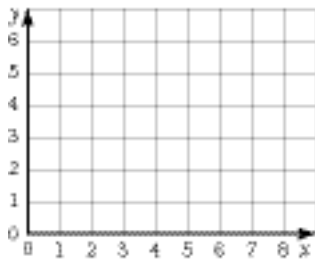
Tell whether the ordered pair is a solution of the equation (yes or no).

43. $y = 3x - 5$; (2,1)

44. $y = 11x$; (12, 121)

45. The table shows the total cost of downloading x songs.

a. Graph the data.



Songs	Cost (\$)
4	3
6	4.50
8	6

b. Find a function to describe the data.

c. At this rate, how much will it cost to download 12 songs?

End-of-Course Test 1 Answer Key

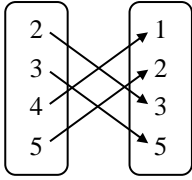
1. $4x - 12$; Distributive Property
2. $21x$; Commutative Property of Multiplication and Associative Property of Multiplication
3. 12 square units
4. $P = 4a + 2x$; \$14
5. $\frac{14}{15}$
6. 9.4
7. $7\frac{23}{36}$
8. 0.42
9. $2\frac{2}{5}$
10. 6
11. 1.2
12. 29.52
13. about 12 in.²; underestimate
14. $\frac{3}{5}$
15. $3\frac{9}{25}$
16. $\frac{13}{40}$
17. 0.6
18. **0.375**
19. 1.24
20. 2 c of flour, $\frac{2}{3}$ c of sugar, $1\frac{1}{3}$ c of chocolate chips
21. 42
22. **4**
23. 25
24. the eighteen-pack (\$0.30 per juice box compared to \$0.35 per juice box in the twelve-pack)
25. 37.5%
26. **76%**
27. 120%
28. 325%
29. Chris, Mary Beth, and Allison are all in agreement:
 $14.6\% = \frac{292}{2000} = 0.146.$
30. $\frac{5}{12}$, 42%, 0.425
31. \$17.50
32. $\frac{2}{3}$
33. about 4 hours, 20 minutes
34. mean: 7; median: 6; mode: 6; range: 9
35. No; you also need to know how many she has shot so far. There is not enough information to answer the question.
36. 52.66 m²
37. 150 ft²
38. $s = \frac{1}{4}$
39. $c = 3$
40. $(4 \bullet 6)w = 96$; 4 cm

41. $t < 7$

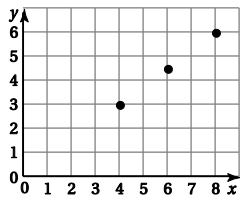
42. $m \geq -3$

43. $50 < 15 + 0.10x$; if you use more than 350 minutes on the first plan

44. Input Output



45. a.



b. $y = \frac{3}{4}x$ c. \$9