Name:_____   Date:_____

1. **Nancy determined that 48 out of the 108 students in tenth grade play a musical instrument. What fraction of the students plays a musical instrument?**

A. $\dfrac{8}{27}$

B. $\dfrac{1}{3}$

C. $\dfrac{4}{9}$

D. $\dfrac{4}{5}$

2. **Which expression correctly uses the distributive property to rewrite the expression $7(y + 5)$?**
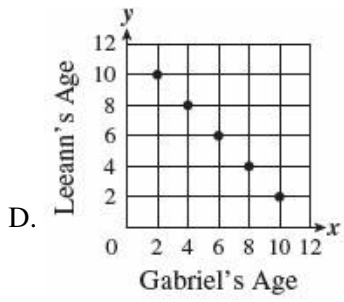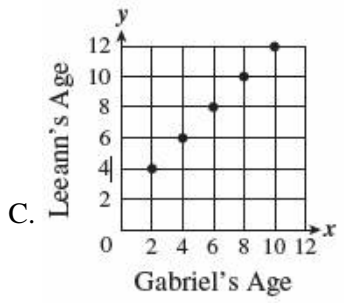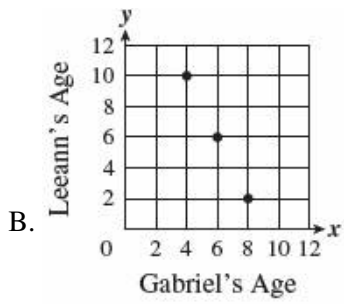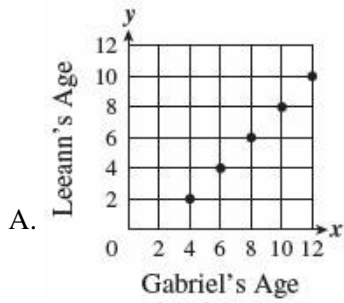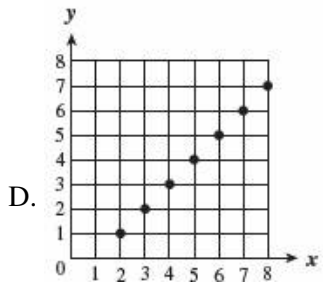
A. $5 + 7y$

B. $5(7 + y)$
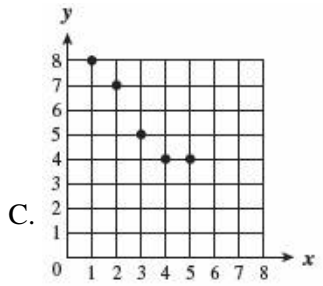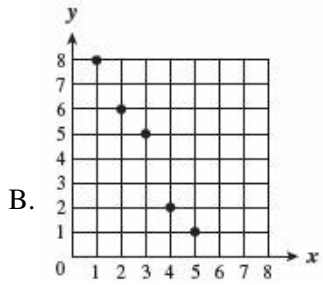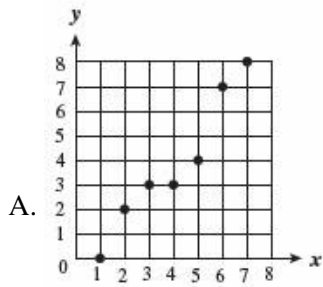
C. $7y + 35$

D. $12(7 + y)$

3. Gabriel is 2 years older than his sister, Leeann. Which of the following graphs correctly represents the relationship between Gabriel's age and Leeann's age, in years?

A.

B.

C.

D.

4. Which of the following graphs shows a constant rate of change?

A.

B.

C.

D.

5. Orlando and Carol each started an exercise program that included riding a bike. The table below shows the number of miles each traveled for 5 weeks of the program.

Weekly Miles Traveled

Week	Orlando	Carol
1	8	5
2	8.5	6
3	9	7
4	9.5	8
5	10	9
6		
7		
8		

If both Orlando and Carol continue to increase the number of miles traveled each week at the constant rates shown in the table, which of the following is a true statement about week 8?

A. Carol will travel more miles than Orlando.

B. Orlando and Carol will travel the same number of miles.

C. Carol will travel a total of 13 miles.

D. Orlando and Carol will travel a total of 20 miles.

6. A sugar cookie recipe calls for $3\frac{1}{2}$ cups of sugar to make 6 dozen cookies. Based on the recipe, how many cups of sugar must be used to make 20 dozen sugar cookies?

A. $9\frac{1}{2}$ cups

B. $11\frac{2}{3}$ cups

C. 61 cups

D. 70 cups

7. The Madhany family traveled 3560 miles on a trip across the United States. Since one mile is about 1.6 kilometers, which of the following is closest to the total number of kilometers in 3560 miles?

A. 5700 kilometers

B. 4540 kilometers

C. 3558 kilometers

D. 2225 kilometers

8. How would you write $\frac{12}{16}$ as a decimal?

A. 0.25
B. 0.35
C. 0.75
D. 0.85

9. If \$55 of a \$220 budget is spent on clothes, what percent of the budget is spent on clothes?

A. 25%
B. 55%
C. 85%
D. 95%

10.

Larry wants to visit his cousin who lives 320 miles away and expects to drive 55 miles per hour the entire way. What is the **best** estimate of how long it will take him to reach his cousin's house?

A. 17 minutes
B. 3 hours
C. 5 hours
D. 6 hours

11. What is the ratio of the length of a side of an equilateral triangle to its perimeter?

A. 3 : 1
B. 1 : 1
C. 1 : 2
D. 1 : 3

12. Pizzas take 20 minutes to cook. Four pizzas can be cooked at one time in the pizza oven. How long would it take to cook 10 pizzas?

A. 40 minutes
B. 50 minutes
C. 60 minutes
D. 80 minutes

13.   What is the next number in the following pattern?
       18, 17, 15, 14, 12, 11, 9, ?

A. 7
B. 8
C. 9
D. 10

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14. Ben has 200 trading cards. Of the 200 cards, he received 64 as a gift. What percent of his trading cards did he receive as a gift?

A. 32%
B. 64%
C. 128%
D. 136%

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15. Kevin made 4 of his 6 shots on goal at soccer practice. If he continues to shoot in the same manner throughout the practice, how many shots would he make out of 72?

A. 12
B. 36
C. 48
D. 60

16.

The recipe for a fruit salad calls for 5 bananas, 3 peaches, 2 apples, 1 pear, 8 strawberries, 1 cantaloupe, and 2 oranges.
What is the ratio of peaches to the total?

A. 1:22
B. 2:22
C. 3:22
D. 8:22

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17.   Find the numbers that complete the pattern.

10	12	14	16	18
13	15		19	

A. 16 and 20
B. 17 and 21
C. 17 and 20
D. 19 and 21

---

18. Darnell caught 4 fish in 2 hours. At that rate, how many fish will he catch in 6 hours?

A. 4 fish
B. 8 fish
C. 10 fish
D. 12 fish

19.   Find the next number in the pattern.

   8, 64, 512, _____
A.   568
B.   960
C. 1,024
D. 4,096

20. Mr. Lowery has $8\frac{3}{4}$ pounds of ground beef that he will use to make hamburgers for a picnic. What is the maximum number of quarter-pound hamburgers he can make?

A. 9

B. 17

C. 35

D. 36

21. The table below shows Patrick's results on a 25-question history test.

Results of Patrick's History Test

	Multiple-Choice Questions	True-False Questions
Number of Questions Answered Correctly	14	6
Number of Questions Answered Incorrectly	1	4

Of the questions Patrick answered **correctly**, what percent were true-false questions?

A. 30%

B. 40%

C. 42%

D. 67%

22. What is the greatest common factor of 16 and 56?

A. 24
B. 16
C. 8
D. 4

23.   Which of these is a prime number?

A. 6
B. 11
C. 27
D. 40

24. Which of the following is a prime factor of 27?

A. 1
B. 3
C. 9
D. 54

25. Gavin receives 30% commission on all of the housewares that he sells. If Gavin sold $250 worth of housewares, how much was his commission?

A. $30
B. $55
C. $75
D. $90

26. Simplify $\frac{24}{60}$ to lowest terms.

A. $\frac{6}{15}$

B. $\frac{2}{5}$

C. $\frac{3}{7}$

D. $\frac{8}{20}$

27. What is the LCM for 8 and 12?

A. 24
B. 48
C. 72
D. 96

28. Which is the greatest common factor of
20 and 36?

A. 1
B. 2
C. 4
D. 6

29.

Which of the following is the greatest number?
{43.26, 4.326, .4326, 432.6}

A.   .4326
B.   4.326
C.   43.26
D. 432.6

30.

Omar has $\frac{1}{4}$ of a pizza. He wants to eat $\frac{2}{3}$ of this amount. How much of the pizza will Omar eat?

A. $\frac{1}{6}$

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

C. $\frac{3}{7}$

D. $\frac{5}{8}$

31.

Twenty-five of the flowers in a vase are red. There are 44 flowers in the vase. What percent of the flowers are red?

A. 57%
B. 19%
C. 24%
D. 33%

32.

Ethan is making a necklace. He has only 16 glass beads. He wants to know all the factors of 16 so he can create a longer necklace with a pattern of the glass beads and gold spacers he has. Which shows all the factors of 16?

A. 0, 2, 3, 8, 16
B. 1, 2, 4, 8, 16
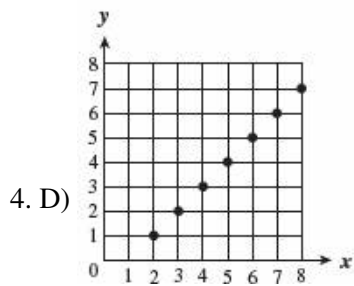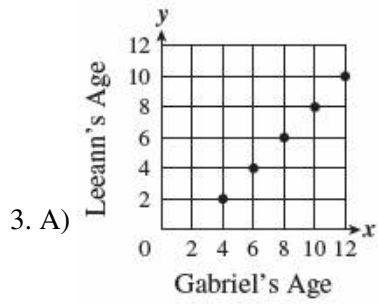C. 0, 1, 2, 4, 8, 16
D. 1, 2, 3, 4, 8, 9, 16

33.

If a point had a negative x coordinate and a negative y coordinate, what quadrant would it be located in?

A. quadrant I
B. quadrant II
C. quadrant III
D. quadrant IV

Answer Key

1. C) $\dfrac{4}{9}$

2. C) $7y + 35$

3. A)

4. D)

5. A) Carol will travel more miles than Orlando.

6. B) $11\frac{2}{3}$ cups

7. A) 5700 kilometers

8. C) 0.75

9. A) 25%

10. D) 6 hours

11. D) 1 : 3

12. C) 60 minutes

13. B) 8

14. A) 32%

15. C) 48

16. C) 3:22

17. B) 17 and 21

18. D) 12 fish

19. D) 4,096

20. C) 35

21. A) 30%

22. C) 8

23. B) 11

24. B) 3

25. C) $75

26. B) $\frac{2}{5}$

27. A) 24

28. C) 4

29. D) 432.6

30. A) $\frac{1}{6}$

31. A) 57%

32. B) 1, 2, 4, 8, 16

33. C) quadrant III