

2017 Penny Sikes Math Tournament

5th Grade Exam

1. What is 11.3×2.7

[A] 29.31

[B] 29.51

[C] 30.31

[D] 30.51

2. Veronica can type 28 words per minute. At this rate, how many words can Veronica type in 5.5 minutes?

[A] 154

[B] 157

[C] 159

[D] 162

3. Divide: $\frac{3}{4} \div \frac{3}{5}$

[A] $\frac{9}{20}$

[B] $\frac{4}{5}$

[C] $1\frac{1}{4}$

[D] $1\frac{7}{20}$

4. Hector can throw a ball $50\frac{3}{5}$ feet. Lee can throw the same ball $48\frac{1}{3}$ feet. How much farther can Hector throw the ball than Lee?

[A] $2\frac{2}{15}$ feet

[B] $2\frac{4}{15}$ feet

[C] $2\frac{3}{5}$ feet

[D] $2\frac{4}{5}$ feet

5. Ahn has 64 crayons. This number is 18 more crayons than Bill has. Which equation should be used to find b , the number of crayons Bill has?

[A] $b = 64 - 18$

[B] $b = \frac{64}{18}$

[C] $64 + 18$

[D] $b = 64 \times 18$

6. A business printed 225 books on Friday. Each book had 350 pages. How many pages did the business print on Friday?

[A] 78,750

[B] 76,550

[C] 1,700

[D] 575

13. Look for a pattern in the number sequence shown below.

36, 42, 48, 54, 60, 66

Which phrase best describes the numbers in the sequence?

- [A] They are all prime numbers [B] They are all factors of 3
[C] They are all factors of 4 [D] They are all multiples of 6

14. David saves money each week. He wants to buy a CD for \$17.95, a T-shirt for \$19.99, and a pair of sunglasses for \$20.89. About how much money does David need to save in order to buy all 3?

- [A] \$40 [B] \$50 [C] \$60 [D] \$70

15. Which color is worn by the greatest fraction of Melody's classmates?

Color	Fraction wearing that color
Red	$\frac{7}{12}$
White	$\frac{1}{4}$
Blue	$\frac{2}{3}$
Yellow	$\frac{11}{24}$

- [A] Red [B] White [C] Blue [D] Yellow

16. Anita and Miguel are each painting a window as part of the scenery for the school play. Anita has painted $\frac{5}{12}$ of her window and Miguel has painted $\frac{1}{3}$ of his window. Which of the following show the correct relationship between these fractions?

- [A] $\frac{5}{12} < \frac{1}{3}$ [B] $\frac{1}{3} = \frac{5}{12}$ [C] $\frac{1}{3} + \frac{5}{12} = 1$ [D] $\frac{1}{3} < \frac{5}{12}$

17. Calvin draws the star below and shades part of his drawing.



Which decimal represents the shaded part of his drawing?

- [A] 0.02 [B] 0.2 [C] 0.4 [D] 0.5

18. Sharon's soccer team needs to raise \$1,000 to buy new uniforms. The table below shows how much money has been raised so far.

Soccer Team Fundraising	
Event	Amount raised
Bake Sale	\$147.50
Car Wash	\$168.00
Candle Sale	\$480.50

About how much more do they need to raise to meet their goal?

- [A] \$100 [B] \$200 [C] \$300 [D] \$400

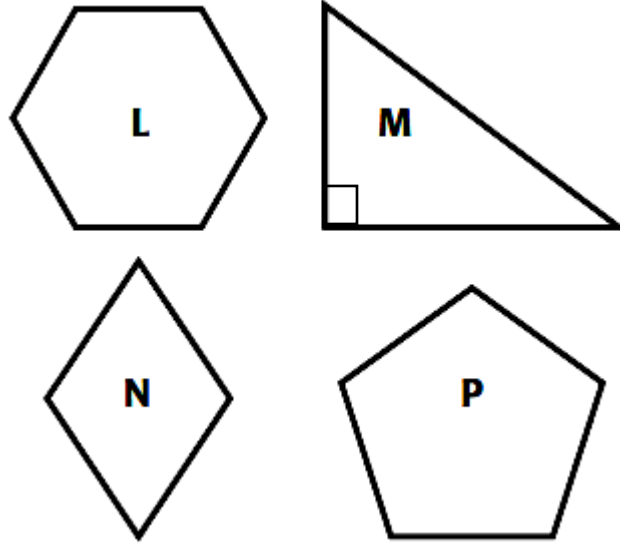
19. The table below shows the times Katie started and finished her homework for five days. She took the same amount of time each day.

Homework Time					
Day	One	Two	Three	Four	Five
Start	4:15	4:23	4:28	4:19	4:20
Finish	5:43	5:51	5:56	5:47	5:48

How long did Katie spend doing her homework on each of the five days?

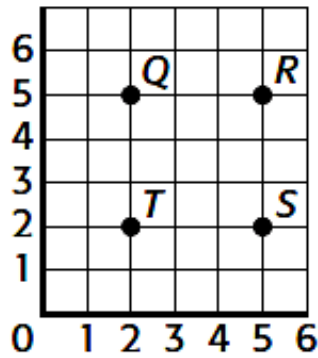
- [A] 28 minutes [B] 58 minutes
[C] 1 hour 28 minutes [D] 1 hour 56 minutes

20. Which statement about the figures below are true?



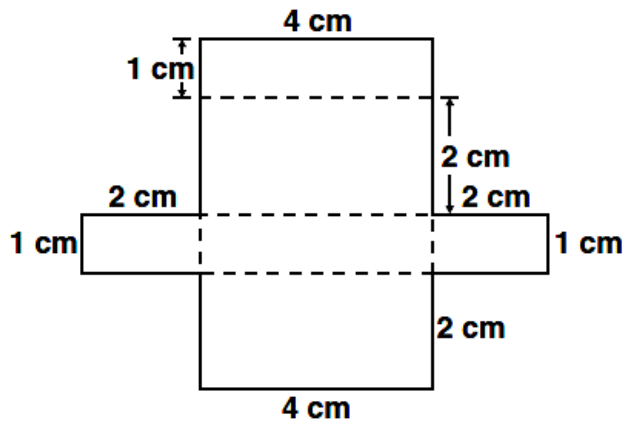
- [A] Figures M and P have right angles
- [B] Figures N and L have only obtuse angles
- [C] Figures N and P have 3 acute angles
- [D] Figures L and N have parallel sides

21. Which of the following ordered pairs show the location of point S?



- [A] (5, 2)
- [B] (2, 2)
- [C] (2, 5)
- [D] (5, 5)

26. What is the surface area of the box formed by the pattern below?



- [A] 28 cm^2 [B] 24 cm^2 [C] 14 cm^2 [D] 8 cm^2

27. If Comcast has 61 different cable channels, and if each channel had a different program each half hour, all day, and all week, then the number of different programs in a week would be

- [A] less than 10,000 [B] between 10,000 and 20,000
[C] between 20,000 and 30,000 [D] more than 30,000

28. After spending $\frac{2}{5}$ of his salary, a man has \$801.00 left. What is his salary in dollars?

- [A] \$320.40 [B] \$480.60 [C] \$1335.00 [D] \$2002.50

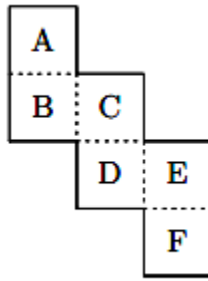
29. A bag contains candies. One-fourth of the candies are blue, one-eighth are green, one-fourth are yellow, and the rest are red. What portion of the candies is red?

- [A] $\frac{3}{8}$ [B] $\frac{5}{8}$ [C] $\frac{1}{8}$ [D] None of these

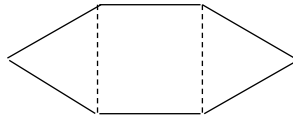
30. Park is 4 years older than Lee. Lee is 3 years younger than Kim. If Kim is 11 years old, how old is Park?

- [A] 9 [B] 10 [C] 11 [D] 12

31. When the diagram shown below is folded to form a cube, what letter is opposite of the face marked F?



- [A] A [B] B [C] C [D] D
32. $1000 \times 100 \times 10 \times 1 \times 0.1 \times 0.01 \times 0.001$
- [A] 0 [B] 0.1 [C] 1 [D] 10
33. Two equilateral triangles share sides with a square, as shown. If a side of the square has a length of 4, what is the perimeter of the figure?

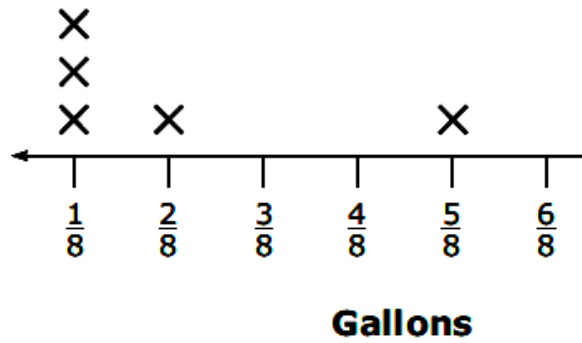


- [A] 48 [B] 40 [C] 32 [D] 24
34. Jan's father paid 10¢ for each math exercise she worked correctly. Jan agreed to pay her father 15¢ for each exercise worked incorrectly. After completing 12 exercises and grading them, her father said "You owe me 5¢!" How many exercises had Jan worked correctly?

- [A] 1 [B] 6 [C] 7 [D] 9
35. What is the value? $\frac{2}{3} \times \frac{9}{5}$

- [A] $\frac{10}{27}$ [B] $1\frac{1}{5}$ [C] $1\frac{3}{8}$ [D] $3\frac{3}{5}$

39. The line plot below shows how much orange juice (in gallons) is in five different one-gallon jugs.



The juice will be poured from jug to jug so that all five jugs contain the same amount of juice. How much juice will there be in each jug?


- [A] $\frac{1}{8}$ gallon [B] $\frac{1}{4}$ gallon [C] $\frac{3}{8}$ gallon [D] $\frac{1}{2}$ gallon
40. Sash's locker combination uses three composite numbers. Which of the following could be the locker combination?
- [A] 4, 27, 39 [B] 7, 11, 19 [C] 9, 13, 21 [D] 18, 26, 59
41. What is the decimal form of $\frac{325}{100}$?
- [A] 32.5 [B] 3.25 [C] 0.325 [D] 0.0325
42. How many 2-digit whole numbers are multiples of **both** 6 and 9?
- [A] 2 [B] 3 [C] 4 [D] 5
43. The shelf shown below is located in the bakery section of a grocery store. About what percentage of the shelf is used for pies?



- [A] 20% [B] 24% [C] 75% [D] 80%

44. If the greatest common factor (GCF) of s and r is 1 and the GCF of r and t is 4, then which of the following **must** be true?

- [A] r is even [B] t is odd [C] $r + s$ is even [D] $s \times t$ is odd

45. Patrick and Susan both collect stamps. Susan has 5 times as many stamps as Patrick. If  is used to represent the number of stamps that Patrick has, which expression describes the total number of stamps that Patrick and Susan have together?

[A] $(5 + \text{flower icon}) + \text{flower icon}$

[B] $(5 + \text{flower icon}) \times \text{flower icon}$

[C] $(5 \times \text{flower icon}) + \text{flower icon}$

[D] $(5 - \text{flower icon}) + \text{flower icon}$

46. Write 47,000,000 in scientific notation.

- [A] 0.47×10^7 [B] 0.47×10^8 [C] 4.7×10^6 [D] 4.7×10^7

47. Which diagram shows the correct way to multiply 1234×987 ?

[A]
$$\begin{array}{r} 1234 \\ \times 987 \\ \hline 8638 \\ 9872 \\ 10806 \\ \hline 1187958 \end{array}$$

[B]
$$\begin{array}{r} 1234 \\ \times 987 \\ \hline 8638 \\ 9672 \\ 11106 \\ \hline 1215958 \end{array}$$

[C]
$$\begin{array}{r} 1234 \\ \times 987 \\ \hline 8638 \\ 9872 \\ 11106 \\ \hline 1217958 \end{array}$$

[D]
$$\begin{array}{r} 1234 \\ \times 987 \\ \hline 7638 \\ 9872 \\ 11106 \\ \hline 1216958 \end{array}$$

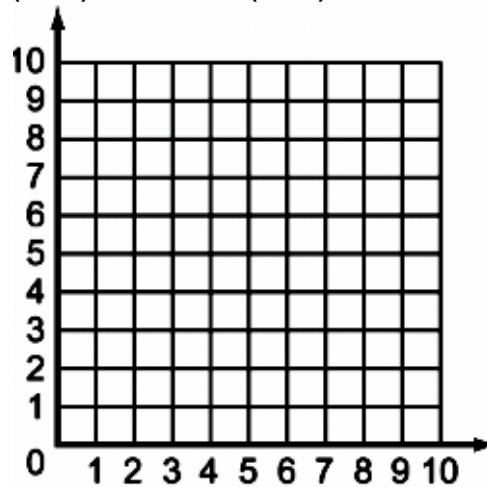
48. Mike walks $\frac{3}{4}$ mile each morning Monday thru Friday. How many yards will he have walked at the end of 2 weeks? (1 mile = 1,760 yards)

- [A] 1,320 yards [B] 2,640 yards [C] 13,200 yards [D] 18,480 yards

49. Write $8\frac{3}{8}$ as a percent.

- [A] 0.08375% [B] 0.8375% [C] 83.75% [D] 837.5%

50. What is the perimeter of the rectangle ABCD that has vertices at A (4,1), B (9,1), C (9,9), and D (4,9)?



- [A] 13 units [B] 18 units [C] 26 units [D] 40 units

1. D
2. A
3. C
4. B
5. A
6. A
7. B
8. C
9. A
10. C
11. C
12. D
13. D
14. C
15. C
16. D
17. C
18. B
19. C
20. D
21. A
22. C
23. B
24. D
25. D

- 26. A
- 27. C
- 28. C
- 29. A
- 30. D
- 31. C
- 32. C
- 33. D
- 34. C
- 35. B
- 36. A
- 37. C
- 38. C
- 39. B
- 40. A
- 41. B
- 42. D
- 43. A
- 44. A
- 45. C
- 46. D
- 47. C
- 48. C
- 49. D
- 50. C