



# Mathletes Challenge

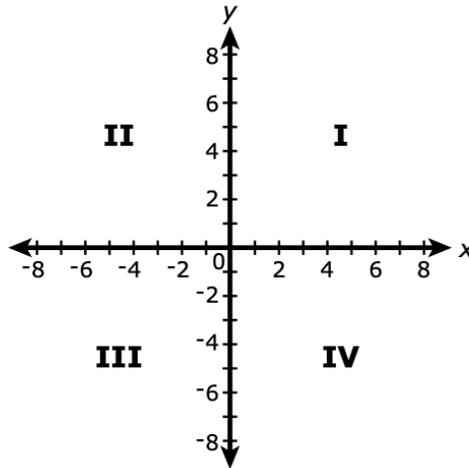
## 2026

Round 2 - Test 1

Unleash your problem-solving power!

### Question 1

Point  $A$  is located at  $(6, 3)$  in the coordinate plane. Point  $B$  is located 5 units below point  $A$ .



Which quadrant in the coordinate plane contains point  $B$ ?

- A** quadrant I
  - B** quadrant II
  - C** quadrant III
  - D** quadrant IV
- 

### Question 2

What is the value of  $43.7 \times 0.25$ ?

- A** 1.0925
- B** 4.395
- C** 10.925
- D** 43.95

**Question 3**

Which value from the set  $\left\{\frac{3}{4}, 1, \frac{3}{2}, 3\frac{3}{4}\right\}$  is a solution to the equation

$$x + \frac{3}{2} = 2\frac{1}{4}?$$

**A**  $\frac{3}{4}$

**B** 1

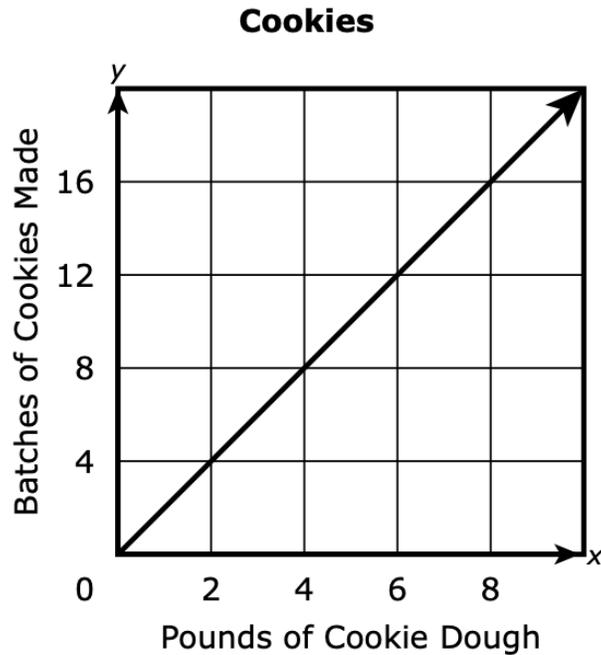
**C**  $\frac{3}{2}$

**D**  $3\frac{3}{4}$

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#### Question 4

A baker made 8 pounds of cookie dough. The baker used the dough to make several batches of cookies. The graph shows the amount of cookie dough that is needed to make different numbers of batches of cookies.



Based on the graph, which statement correctly explains the number of batches of cookies the baker can make from the 8 pounds of dough?

- A** The baker can make 8 batches of cookies because it takes 1 pound of dough to make 1 batch of cookies.
- B** The baker can make 16 batches of cookies because it takes 1 pound of dough to make 1 batch of cookies.
- C** The baker can make 8 batches of cookies because it takes 1 pound of dough to make 2 batches of cookies.
- D** The baker can make 16 batches of cookies because it takes 1 pound of dough to make 2 batches of cookies.

**Question 5**

A worker has 25 feet of ribbon to make bows. Each bow uses 2 feet of ribbon. The worker divides 25 by 2 and gets 12.5 as an answer.

What does the worker's answer mean in this context?

- A** The worker can make 12 bows and have 1 foot of ribbon left.
  - B** The worker can make 12 bows and have 5 feet of ribbon left.
  - C** The worker can make 5 bows and have 12 feet of ribbon left.
  - D** The worker can make 1 bow and have 12 feet of ribbon left.
- 

**Question 6**

Laura uses 3 yards of fabric to make 2 skirts. She uses the same amount of fabric to make each skirt.

At this rate, what is the total amount of fabric, in yards, she needs to make 6 skirts?

Select one answer.

- A** 4
- B** 6
- C** 7
- D** 9

**Question 7**

Students in a science class measured rain by writing down the depth of water in a bucket that collected the rain. The bucket was empty before the rain began to fall at a steady rate over a 6-hour period during school. After 3 hours, the water had a depth of 18 millimeters.

At what average unit rate, in millimeters per hour, did the bucket fill after rain started to fall at a steady rate?

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

**B**  $\frac{1}{3}$

**C** 3

**D** 6

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**Question 8**

Yvonne's age, in years, is represented by  $y$ . Rebekah's age is one year less than three times Yvonne's age.

Which expression represents Rebekah's age, in years?

Select one answer.

**A**  $3y - 1$

**B**  $1 - 3y$

**C**  $3(y - 1)$

**D**  $3(1 - y)$

**Question 9**

The table shows several values of  $x$  and  $y$ .

$x$	$y$
1	6
3	8
4	9

A student claims that since each value for  $y$  is 5 more than the corresponding value of  $x$ , that the ratio of  $y$  to  $x$  is 5 to 1 for the values in the tables.

Which statement **best** explains whether the student's claim is correct or incorrect?

- A** The student's claim is correct because  $6 - 1 = 5$ ,  $8 - 3 = 5$ , and  $9 - 4 = 5$ .
  - B** The student's claim is incorrect because the ratio of  $y$  to  $x$  is different for each pair of corresponding  $x$ - and  $y$ -values.
  - C** The student's claim is incorrect because the ratio of  $y$  to  $x$  is 1 to 5 for each pair of corresponding  $x$ - and  $y$ -values.
  - D** The student's claim is incorrect because the ratio between the  $x$ -values and the  $y$ -values of the first two points is 2 to 1 and not 5 to 1.
-

**Question 10**

The equation  $x + 5 = 12$  can be solved using one step.

Which statement provides a correct explanation and solution to the equation?

- A** The number 5 should be added to both sides of the equation, and the solution is  $x = 17$ .
  - B** The number 5 should be subtracted from both sides of the equation, and the solution is  $x = 7$ .
  - C** The number 5 should be divided from both sides of the equation, and the solution is  $x = \frac{12}{5}$ .
  - D** The number 5 should be multiplied to both sides of the equation, and the solution is  $x = 60$ .
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**Question 11**

A game designer used 9 ounces of clay to make 24 identical pieces for a game.

What is the number of ounces of clay that were used for each piece?

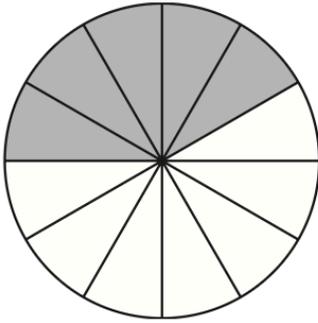
- A**  $\frac{3}{8}$
  - B**  $\frac{5}{8}$
  - C**  $\frac{8}{5}$
  - D**  $\frac{8}{3}$
-

**Question 12**

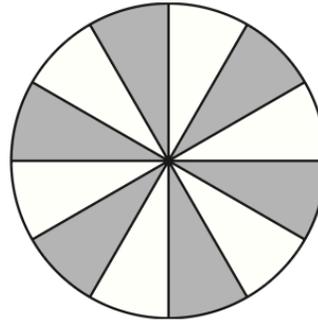
A family ordered a pizza. They ate  $\frac{5}{6}$  of the pizza.

In which of these fraction models do the shaded parts represent the fraction of the pizza the family ate?

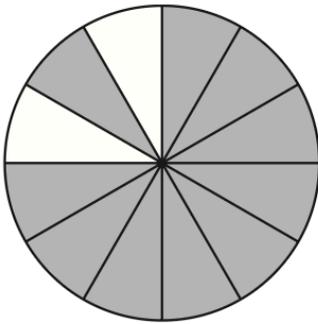
(A)



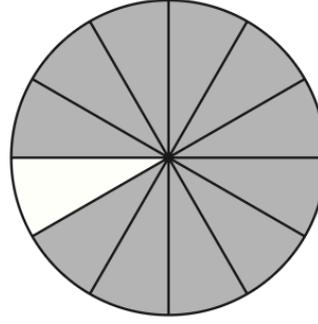
(B)



(C)

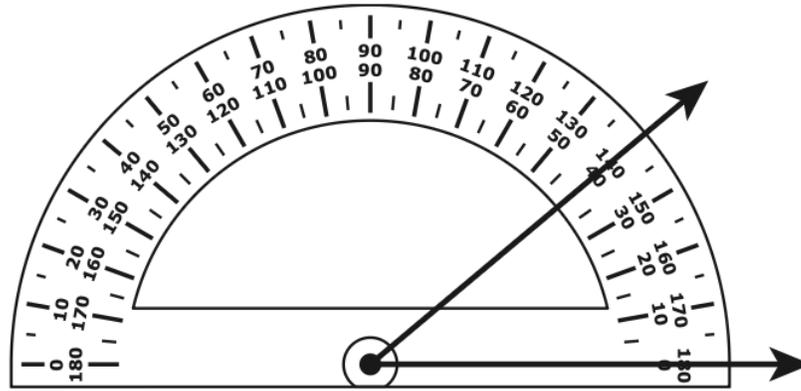


(D)

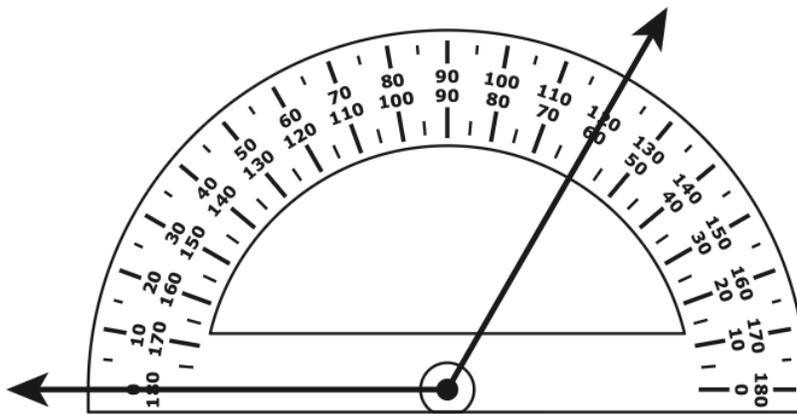


**Question 13**

Two protractors are used to measure angle A and angle B, as shown.



**Angle A**



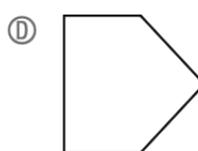
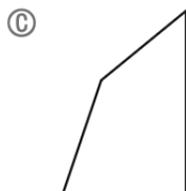
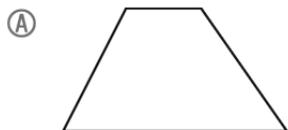
**Angle B**

Which of these shows the measures of angle A and angle B?

- Ⓐ angle A:  $40^\circ$  angle  
angle B:  $60^\circ$  angle
- Ⓑ angle A:  $40^\circ$  angle  
angle B:  $120^\circ$  angle
- Ⓒ angle A:  $140^\circ$  angle  
angle B:  $120^\circ$  angle
- Ⓓ angle A:  $60^\circ$  angle  
angle B:  $140^\circ$  angle

**Question 14**

Which of these figures appears to have at least two sides that are parallel **and** at least two sides that are perpendicular?



**Question 15**

A student wrote the expression shown.

$$\frac{6}{10} + \frac{7}{100}$$

Which of the following is equivalent to the expression the student wrote?

Ⓐ  $\frac{6}{10} + \frac{7}{10}$

Ⓑ  $\frac{60}{10} + \frac{7}{100}$

Ⓒ  $\frac{60}{100} + \frac{7}{100}$

Ⓓ  $\frac{60}{100} + \frac{70}{100}$

**Question 16**

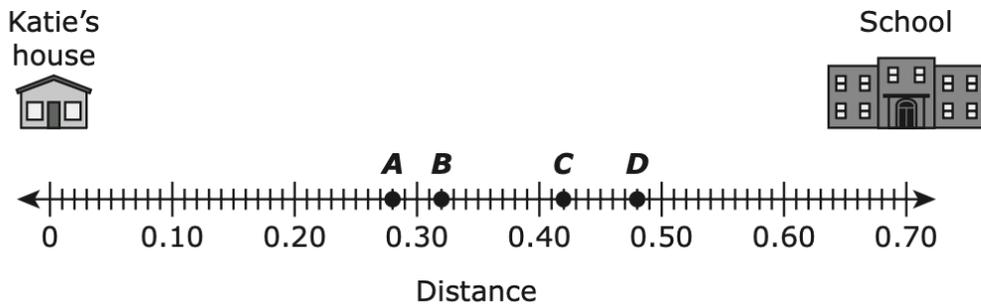
Krista has 32 crayons. Devon has 4 times as many crayons as Krista.

Which equation can be used to find  $d$ , the total number of crayons that Devon has?

- Ⓐ  $d = 32 \div 4$
  - Ⓑ  $d = 32 \times 4$
  - Ⓒ  $4 = 32 \div d$
  - Ⓓ  $32 = 4 \times d$
- 

**Question 17**

Katie's house is 0.70 mile from her school, as shown on this number line.



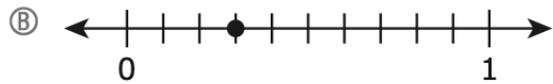
She passes a bakery on her way to school. The bakery is 0.28 mile from the school.

Which point on the number line represents the location of the bakery?

- Ⓐ point A
- Ⓑ point B
- Ⓒ point C
- Ⓓ point D

**Question 18**

Which of these number lines has a point that represents the location of 0.36?



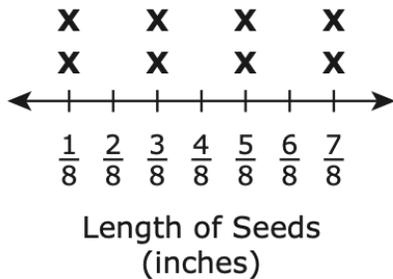
**Question 19**

A scientist measured the lengths of seeds from different plants. The lengths, in inches, of the seeds the scientist measured are shown in this list.

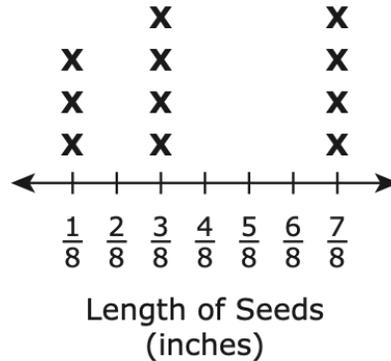
$\frac{7}{8}, \frac{3}{8}, \frac{1}{8}, \frac{7}{8}, \frac{3}{8}, \frac{1}{8}, \frac{3}{8}, \frac{3}{8}, \frac{5}{8}, \frac{7}{8}, \frac{7}{8}, \frac{1}{8}$

Which line plot shows the lengths, in inches, of the seeds from different plants?

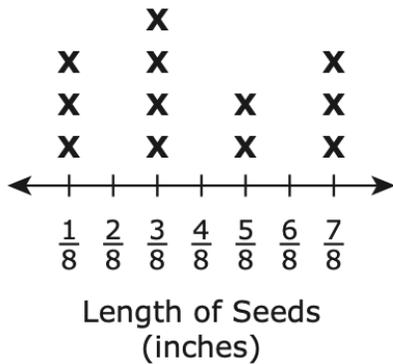
**Ⓐ Plant Seed Lengths**



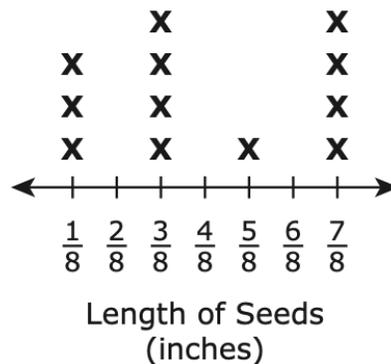
**Ⓑ Plant Seed Lengths**



**Ⓒ Plant Seed Lengths**



**Ⓓ Plant Seed Lengths**



**Question 20**

Which of the following represents this number written in expanded form?

*four hundred sixteen and eighty-two hundredths*

- Ⓐ  $4 \times 100 + 1 \times 10 + 6 \times 1 + 8 \times \frac{1}{10} + 2 \times \frac{1}{100}$
- Ⓑ  $4 \times 100 + 1 \times 10 + 6 \times 1 + 80 \times \frac{1}{10} + 2 \times \frac{1}{100}$
- Ⓒ  $400 \times 100 + 10 \times 10 + 6 \times 1 + 8 \times \frac{1}{10} + 2 \times \frac{1}{100}$
- Ⓓ  $400 \times 100 + 10 \times 10 + 6 \times 1 + 80 \times \frac{1}{10} + 2 \times \frac{1}{100}$
-

**END  
OF  
TEST**

## **ANSWER KEY - 2026 ROUND 2 - TEST 1**

<b>1. D</b>	<b>11. A</b>
<b>2. C</b>	<b>12. C</b>
<b>3. A</b>	<b>13. B</b>
<b>4. D</b>	<b>14. D</b>
<b>5. A</b>	<b>15. C</b>
<b>6. D</b>	<b>16. B</b>
<b>7. D</b>	<b>17. C</b>
<b>8. A</b>	<b>18. A</b>
<b>9. B</b>	<b>19. D</b>
<b>10. B</b>	<b>20. A</b>