Mathletes Challenge

2026

Championship - Test 2

Unleash your problem-solving power!

Question 1

What is the value of the expression shown below?

$$\frac{(3^2 + 5 \cdot 3)}{2^3}$$

A 3

B $3\frac{1}{2}$

C 4

D $5\frac{1}{4}$

Question 2

A teacher asks 50 sixth grade students to vote for their favorite hobby. The table below shows the results.

FAVORITE HOBBIES

Hobby	Number of Students
Reading	12
Playing a musical instrument	11
Watching movies	9
Playing sports	18

What percent of the students voted for either playing a musical instrument or reading as their favorite hobby?

A 12%

B 23%

C 46%

D 54%

Question 3

What is the coefficient in the expression $2x^3$?

A 2

B 3

C x

D $2x$

Question 4

Which number is **not** a solution to the inequality shown below?

$$3w \geq 12$$

A 3

B 4

C 5

D 8

Question 5

A school club includes students from four grade levels. The number of students from each grade level is shown in the list below.

- 12 students from Grade 5
- 6 students from Grade 6
- 2 students from Grade 7
- 8 students from Grade 8

What is the ratio of the total number of students in the club from Grades 5 and 6 to the total number of students in the club from Grades 7 and 8 ?

A 2 : 1

B 3 : 1

C 5 : 9

D 9 : 5

Question 6

Which expression represents the phrase "the sum of fifteen and five less than twice a number, n" ?

A $15(5-2n)$

B $15(2n-5)$

C $15+(5-2n)$

D $15+(2n-5)$

Question 7

Tyrone deposits $\$65$ into his bank account. The next day he withdraws $\$20$. Which two integers represent the activity in Tyrone's bank account?

A -65 and -20

B -65 and 20

C 65 and -20

D 65 and 20

Question 8

Mary rides her bike at an average speed of 12 miles in 1 hour. Riding at this rate, how many feet does Mary ride in 1 minute?

A 1,056

B 26,400

C 63,360

D 3,801,600

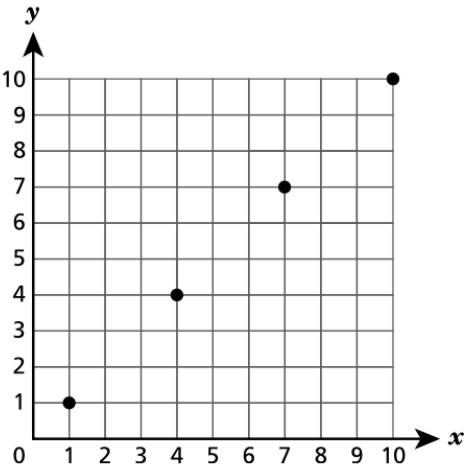
Question 9

The two rules shown below are used to generate sets of ordered pairs. The starting point is $(1, 1)$. The ordered pairs are then graphed on a coordinate plane.

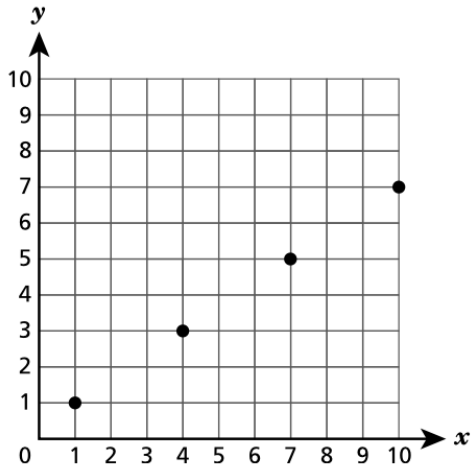
- Rule for x coordinate: Each value is 3 more than the one before it.
- Rule for y coordinate: Each value is 2 more than the one before it.

Which graph shows the set of ordered pairs?

A



C



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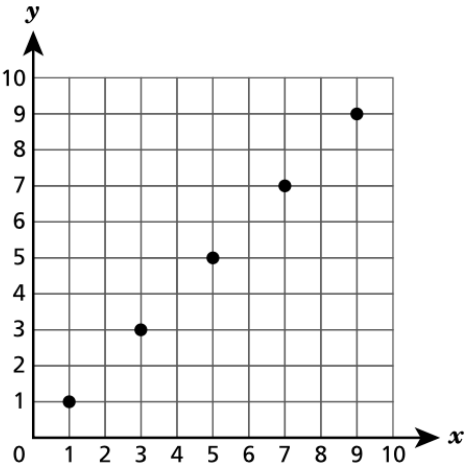

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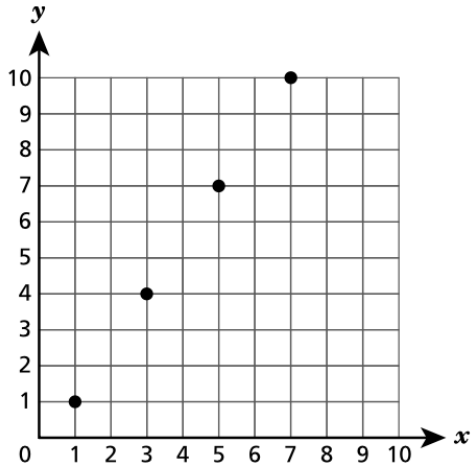


Question 10

A gift box is in the shape of a right rectangular prism. The gift box is $7\frac{3}{5}$ centimeters long, $5\frac{4}{5}$ centimeters wide, and $2\frac{1}{2}$ centimeters high. What is the volume, in cubic centimeters, of the gift box?

A $15\frac{9}{10}$

B $70\frac{6}{25}$

C $110\frac{1}{5}$

D $155\frac{8}{50}$

Question 11

Hannah buys oranges and apples from the grocery store. She pays $6.25 for 5 pounds of oranges and $6.90 for 6 pounds of apples. Which statement about the fruit is true?

A Apples have the greater unit price at $1.15.

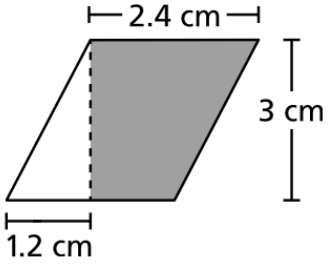
B Apples have the greater unit price at $1.25.

C Oranges have the greater unit price at $1.15.

D Oranges have the greater unit price at $1.25.

Question 12

The figure below shows a parallelogram with part of it shaded.



What is the area, in square centimeters, of the part of the parallelogram that is shaded?

A 3.6

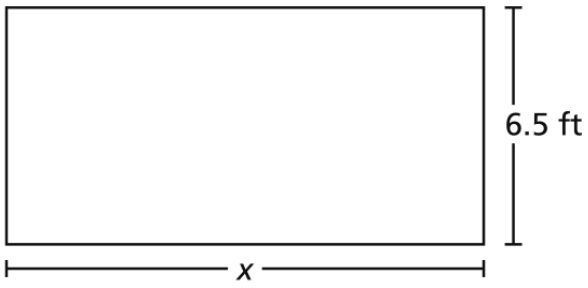
B 5.4

C 4.32

D 8.64

Question 13

The diagram below shows a rectangular garden. The perimeter of the garden is 47 feet.



Which equation can be used to find the length, x, in feet, of the garden?

A $x + 13 = 47$

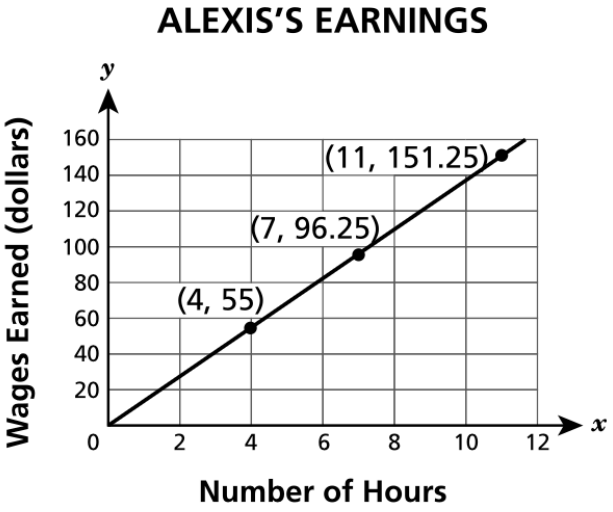
B $x + 6.5 = 47$

C $2x + 13 = 47$

D $2x + 6.5 = 47$

Question 14

Alexis has a part-time job. The graph below shows the relationship between x, the number of hours worked, and y, the wages she earned.



What is Alexis's wage earned per hour?

A $0.07

B $1.57

C $10.00

D $13.75

Question 15

Which expression is equivalent to $(-0.3) + 1.5$?

A $(-0.3) + (-1.5)$

B $(-1.5) + (0.3)$

C $1.5 - 0.3$

D $0.3 - 1.5$

Question 16

A chair is on sale at a discounted price of $49.00. The regular price of the chair is $10.00 less than 2 times the discounted price. What is the difference between the total cost of 3 regular-priced chairs and 3 chairs at the discounted price?

A $39.00

B $88.00

C $117.00

D $147.00

Question 17

A car travels 30 miles and uses $1\frac{2}{3}$ gallons of fuel. What is the unit rate, in miles per gallon, for the car?

A $\frac{1}{50}$

B $\frac{1}{18}$

C 18

D 50

Question 18

A school sold tickets to a musical for $8.95 per person. The musical had two performances as described below.

- On Friday night, 152 people attended.
- On Saturday night, 25% more people attended than Friday night.

What was the total amount of money earned from tickets sold on these two nights?

A $1,700.50

B $2,723.04

C $2,944.55

D $3,060.90

Question 19

Shannon has $500.00 in her bank account. Each week, she withdraws $40.00 from the account. If she does not deposit or withdraw any additional money, what is the maximum number of weeks she can withdraw the same amount of money and maintain a balance of at least $200.00 ?

A 5

B 7

C 8

D 12

Question 20

A submarine at sea level descends at a constant rate. After descending for $1\frac{1}{3}$ hours, the submarine's depth is $2{,}700$ feet below sea level. At this rate, which value represents the depth, in feet, the submarine will have reached after descending for a total of $2\frac{1}{4}$ hours?

A 5,805.00

B 5,400.00

C 4,837.50

D 4,556.25

END
OF
TEST

ANSWER KEY - 2026 ROUND 3 - TEST 2

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