

Algebra 1 Quick-Quiz-11212024

Question 1.

Find $f(-4)$ when $f(x) = -x^2 - 2x$.

- A** 24
- B** 8
- C** -8
- D** -24
- E** none of the above

Use your graphing software to check your answer.

Question 2

Solve the equation $4x - 2(x - 4) = 1$.

- A** $x = \frac{5}{2}$
- B** $x = \frac{9}{2}$
- C** $x = -\frac{7}{2}$
- D** $x = -\frac{3}{2}$
- E** none of the above

Question 3.

Which is an algebraic expression for the n th number in the following pattern:

2, 4, 6, 8, ...

- A** $2n$
- B** 2^n
- C** $2n + 1$
- D** $2 + n$
- E** $2(n + 1)$

Question 4.

To rent a cabin for one night, a resort charges \$50.00 plus an additional \$10.00 per person. Which function models the total cost for x people to rent the cabin for one night?

- A $C(x) = 50x$
- B $C(x) = 10x$
- C $C(x) = 50 + 10x$
- D $C(x) = 10 + 50x$
- E $C(x) = 60x$

Question 5.

Which function rule models the data in the table?

| x | y |
|-----|-----|
| -1 | -22 |
| 0 | -15 |
| 1 | -8 |

- A $y = 7x - 15$
- B $y = -7x - 15$
- C $y = 7x + 15$
- D $y = -7x + 15$
- E none of the above

Question 6.

The graph of which function is **not** a line?

- A** $2x + 4y = 5$ **B** $y = 0.6x$
C $y = 2x^3$ **D** $y = 4$
E $y = 4x - (2x + 1) + 4$

Question 7.

Which of the following statements are **true** about the graph of $y = -2x^2 + 3x - 1$?

- I.** The parabola opens upward.
II. The parabola opens downward.
III. The graph of $y = \left(\frac{1}{2}\right)x^2$ is wider.
IV. The graph of $y = \left(\frac{1}{2}\right)x^2$ is narrower.
- A** II and III **B** I and IV
C I and III **D** II and IV
E None of the statements are true.

Question 8.

Which table of ordered pairs is *not* a function?

A

| x | y |
|-----|-----|
| -1 | 4 |
| 0 | 4 |
| 2 | 4 |
| 4 | 4 |

B

| x | y |
|-----|-----|
| -8 | 0 |
| -8 | 1 |
| -8 | 2 |
| -8 | 3 |

C

| x | y |
|-----|-----|
| -2 | -4 |
| 0 | 0 |
| 2 | -4 |
| 4 | -16 |

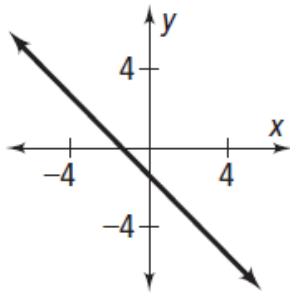
D

| x | y |
|-----|-----|
| -1 | -1 |
| 0 | 0 |
| 2 | 8 |
| 3 | -7 |

E All of these are functions.

Question 9.

Which equation is graphed below?



- A $y = -2$
- B $x = -2$
- C $y = -x - 2$
- D $x = y - 2$
- E none of the above

Question 10.

What are the solutions to

$$x^2 - 11x + 24 = 0?$$

- A -8 and -3
- B -8 and 3
- C 8 and -3
- D 8 and 3
- E none of the above

Bonus Question

Question 11

If $f(x) = 2x$ and $g(x) = x + 2$, what is $f(x) + g(x)$?

- A $x + 2$
- B $x + 4$
- C $2x + 2$
- D $3x + 2$
- E $2x^2 + 2$