Algebra Quick Quiz 02012022

Question 1.

What are the zeros of $f(x) = (x + 5)(x - 4)$?

A 4 and 5 **B** -4 and 5
C 4 and -5 **D** -4 and -5
E none of the above

Use your graphing software to check your answer.

Question 2

A high school sponsored a badminton tournament. After each round, one-half of the players were eliminated. If there were 64 players at the start of the tournament, which equation models the number of players left after 3 rounds?

(1) $y = 64(1 - .5)^3$ (3) $y = 64(1 - .3)^{0.5}$
(2) $y = 64(1 + .5)^3$ (4) $y = 64(1 + .3)^{0.5}$

Question 3. Use your graphing software to check your answer.

What is the vertex of the parabola
$y = (x + 3)^2 + 1$?

A $(-3, -1)$
B $(-3, 1)$
C $(-1, -3)$
D $(-1, 3)$
E none of the above

Question 4.

The statement "A number multiplied by itself is the number added to itself" is represented by which of these equations?

A $n = 2n$
B $n = n + 1$
C $n^2 = 2n$
D $2n = n + 1$
E none of the above

Question 5.

Given $7x + 2 \geq 58$, which number is *not* in the solution set?

(1) 6
(2) 8
(3) 10
(4) 12

Question 6.

The tables below show the values of four different functions for given values of x.

x	f(x)
1	12
2	19
3	26
4	33

x	g(x)
1	–1
2	1
3	5
4	13

x	h(x)
1	9
2	12
3	17
4	24

x	k(x)
1	–2
2	4
3	14
4	28

Which table represents a linear function?

(1) $f(x)$
(2) $g(x)$
(3) $h(x)$
(4) $k(x)$

Question 7.

When $3x + 2 \leq 5(x - 4)$ is solved for x, the solution is

(1) $x \leq 3$

(2) $x \geq 3$

(3) $x \leq -11$

(4) $x \geq 11$

Question 8.

Which value of x makes $\frac{x-3}{4} + \frac{2}{3} = \frac{17}{12}$ true?

(1) 8

(2) 6

(3) 0

(4) 4

Question 9.

Which statement best describes the solutions of a two-variable equation?

(1) The ordered pairs must lie on the graphed equation.

(2) The ordered pairs must lie near the graphed equation.

(3) The ordered pairs must have $x = 0$ for one coordinate.

(4) The ordered pairs must have $y = 0$ for one coordinate.

Question 10.

Which relation is a function?

A {(–1, 3), (–2, 6), (0, 0), (–2, –2)}

B {(–2, –2), (0, 0), (1, 1), (2, 2)}

C {(4, 0), (4, 1), (4, 2), (4, 3)}

D {(7, 4), (8, 8), (10, 8), (10, 10)}

Bonus Question

Question 11

Solve algebraically for y:

$$4(y - 3) \leq 4(2y + 1)$$