

Algebra 1 Quick quiz 10172023

1

A store is advertising notebook paper in a back-to-school sale as “Buy one, get one free.” The store posted the table below, but one value is missing.

<b>Number of Packages</b>	2	4	6	8	10
<b>Total Cost</b>	\$0.50	\$1.00	\$1.50	\$2.00	?

What value will correctly complete the pattern in the table?

- A \$2.00
- B \$2.25
- C \$2.50
- D \$3.00

2.

In the equation  $y = 2x$ , what is the value of  $y$  when  $x = 3$ ?

- A 5
- B 6
- C 7
- D 9

3.

What is the factored form of  $6x^4 - 21x^3 - 12x^2$ ? Show or explain your work.

4.

Which expression is equivalent to  $(2x^3)(x^5)$ ?

- A  $x^{10}$
- B  $2x^8$
- C  $2x^{15}$
- D  $3x^8$

5.

Which expression correctly uses the distributive property to rewrite the expression  $7(y + 5)$ ?

- A  $5 + 7y$
- B  $5(7 + y)$
- C  $7y + 35$
- D  $12(7 + y)$

6.

Suzy is competing in a long-distance bicycle race. In the first 6 hours, she completed 132 miles of the race. If she plans to ride 7 hours per day, how many days will it take for her to complete the 616-mile race at the same rate?

- A 2
- B 4
- C 6
- D 8

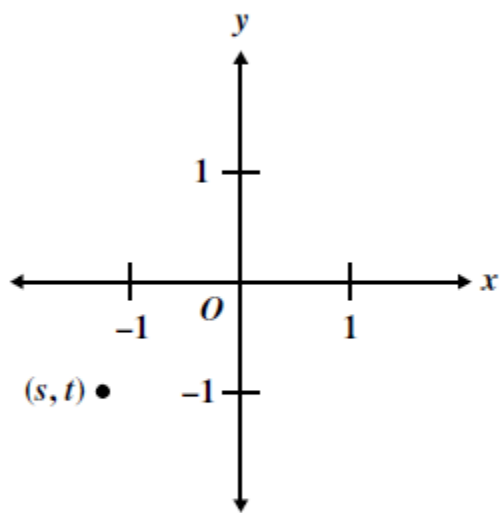
7.

What is  $d$  if  $94 = 2d + 80$ ?

- A 2
- B 4
- C 7
- D 8

8.

If  $(s, t)$  denotes the coordinates of the point shown in the graph below, which of the following must be true?



- A  $s > 0$  and  $t > 0$
- B  $s > 0$  and  $t < 0$
- C  $s < 0$  and  $t > 0$
- D  $s < 0$  and  $t < 0$

9.

What is the equation of a line that has a slope of  $\frac{3}{4}$  and an  $x$ -intercept of 0?

A  $y = 0$

B  $y = \frac{3}{4}$

C  $y = \frac{3}{4}x$

D  $y = x + \frac{3}{4}$

10.

What does  $8 \div 4 \times 2 + 2$  equal?

A  $\frac{1}{2}$

B 3

C 6

D 8

BONUS

11.

The quadratic function  $y = k(x)$  is graphed in the  $xy$ -coordinate plane and has its vertex at  $(-2, 0)$ . Which could be the equation of  $k$ ?

A.  $k(x) = (x - 4)^2$

B.  $k(x) = (x - 2)^2$

C.  $k(x) = (x + 2)^2$

D.  $k(x) = (x + 4)^2$