Geo Bellwork Tuesday, March 10, 2020

8

If $\frac{a}{b} = 2$, what is the value of $\frac{4b}{a}$?

A) 0
B) 1
C) 2
D) 4

9

$$3x + 4y = -23$$
$$2y - x = -19$$

What is the solution (x, y) to the system of equations above?

A) $(-5, -2)$
B) $(3, -8)$
C) $(4, -6)$
D) $(9, -6)$

10

$$g(x) = ax^2 + 24$$

For the function g defined above, a is a constant and $g(4) = 8$. What is the value of $g(-4)$?

A) 8
B) 0
C) −1
D) −8

11

$$b = 2.35 + 0.25x$$
$$c = 1.75 + 0.40x$$

In the equations above, b and c represent the price per pound, in dollars, of beef and chicken, respectively, x weeks after July 1 during last summer. What was the price per pound of beef when it was equal to the price per pound of chicken?

A) $2.60
B) $2.85
C) $2.95
D) $3.35

12

A line in the xy-plane passes through the origin and has a slope of $\frac{1}{7}$. Which of the following points lies on the line?

A) (0, 7)
B) (1, 7)
C) (7, 7)
D) (14, 2)

CONTINUE

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8

If $\frac{a}{b} = 2$, what is the value of $\frac{4b}{a}$?

A) 0
B) 1
C) 2
D) 4

$\frac{a}{b} = \frac{2}{1}$

$4 \cdot \frac{b}{a} = \frac{1}{2} \cdot 4$

$\frac{4b}{a} = 2$

9

$$3x + 4y = -23$$
$$2y - x = -19$$

What is the solution (x, y) to the system of equations above?

A) $(-5, -2)$
B) $(3, -8)$
C) $(4, -6)$
D) $(9, -6)$

$3x + 4y = -23$

$3(-x + 2y = -19)$

$3x + 4y = -23$

$+ \quad -3x + 6y = -57$

$10y = -80$

$\frac{10y}{10} = \frac{-80}{10}$

$y = -8$

10

$$g(x) = ax^2 + 24$$

For the function g defined above, a is a constant and $g(4) = 8$. What is the value of $g(-4)$?

A) 8
B) 0
C) −1
D) −8

$g(-4) = g(4) = 8$

since the only x in the equation is being squared

$(-4)^2 = (4)^2$

$g(-4) = g(4)$

11

$$b = 2.35 + 0.25x$$
$$c = 1.75 + 0.40x$$

In the equations above, b and c represent the price per pound, in dollars, of beef and chicken, respectively, x weeks after July 1 during last summer. What was the price per pound of beef when it was equal to the price per pound of chicken?

A) $2.60
B) $2.85
C) $2.95
D) $3.35

$2.35 + 0.25x = 1.75 + .40x$

$-.25x \qquad -.25x$

$2.35 = 1.75 + .15x$

$-1.75 \qquad -1.75$

$.60 = .15x$

$\frac{.60}{.15} = \frac{.15x}{.15}$

$x = 4$

$b = 2.35 + 0.25(4)$

$b = 2.35 + 1.00$

$b = 3.35$

12

A line in the xy-plane passes through the origin and has a slope of $\frac{1}{7}$. Which of the following points lies on the line?

A) (0, 7)
B) (1, 7)
C) (7, 7)
D) (14, 2)

$b = 0$

$m = 1/7$

$y = \frac{1}{7}x$

the only point that makes this eq true is (14, 2)

CONTINUE