8

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

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

$4\left(\frac{b}{a}\right) = 4\left(\frac{1}{2}\right) = 2$

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

$\frac{4 \cdot 2}{4} = \frac{8}{4} = 2$

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

Let $\frac{a}{b} = \frac{3}{2}$

Find $\frac{3b}{2a}$

$\frac{3(2)}{2(3)} \quad \frac{6}{6} = 1$

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) $(9, -6)$

$3x + 4y = -23$

$-x + 2y = -19$ ×3

$-3x + 6y = -57$

$3x + 4y = -23$

$10y = -80$ $y = -8$

Let $3x + 2y = 8$

$4x - y = 7$

Find x & y...

$12x + 8y = 32$

$-12x + 3y = -21$

$11y = 11$

$y = 1$

$3x + 2y = 8$

$8x - 2y = 14$

$11x = 22$

$x = 2$

$(2, 1)$

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

$g(4) = a(4)^2 + 24 = 8$

$g(-4) = a(-4)^2 + 24 = 8$ ✓

Let $y = a|x-3| + 5$

$a|5-3| + 5 = 10$

If $y = 10$, when $x = 5$

what is y when $x = 1$? $a|1-3| + 5$

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