

Clue 2 Set 1

1. A drummer and a guitarist each wrote songs for their band. The guitarist wrote 8 fewer than twice the number of songs that the drummer wrote. They wrote a total of 46 songs.

Which system of equations models this situation if the drummer wrote d songs and the guitarist wrote g songs?

envy
$$\begin{aligned} g &= 2d - 8 \\ g + d &= 46 \end{aligned}$$

Big
$$\begin{aligned} d &= 2g - 8 \\ d &= 46 - g \end{aligned}$$

magic
$$\begin{aligned} g &= 8 - 2d \\ g &= 46 - d \end{aligned}$$

Strike
$$\begin{aligned} d &= 8 - 2g \\ d + g &= 46 \end{aligned}$$

2. What is the solution to $8x - 3(2x - 4) = 3(x - 6)$

rock 6

still 2

golf 30

dive No solution

3. A bus travels two different routes: the Green Route and the Blue Route. The routes are different lengths.

- On Monday the bus traveled the Green Route 6 times and the Blue Route 5 times, traveling a total of 52 miles.
- On Tuesday the bus traveled the Green Route 12 times and the Blue Route 13 times, traveling a total of 119 miles.

What is the length of the Green Route in miles?

blank 4.4 miles

beans 4.5 miles

zone 6.4 miles

tart 6.8 miles

Clue 2 Set 2

1. What is the equation in slope-intercept form of the line that passes through $(-4, 47)$ and $(2, -16)$?

light $y = -\frac{21}{2}x + \frac{979}{21}$

print $y = -\frac{21}{2}x + 5$

sore $y = -\frac{2}{21}x + \frac{979}{21}$

note $y = -\frac{2}{21}x + 5$

2. A student is ordering a flower arrangement. She can choose any combination of roses and carnations for her flower arrangement, and she does not want to spend more than \$30.

If roses cost \$3 each and carnations cost \$2 each, which inequality represents all possible combinations of x roses and y carnations?

silk $3x + 2y < 30$

even $2x + 3y > 30$

berry $3x + 2y \leq 30$

board $2x + 3y \leq 30$

3. A set of weights includes a 4 lb barbell and 6 pairs of weight plates. Each pair of plates weighs 20 lb. If x pairs of plates are added to the barbell, the total weight of the barbell and plates in pounds can be represented by $f(x) = 20x + 4$.

What is the range of the function for this situation?

high $\{0, 1, 2, 3, 4, 5, 6\}$

bird $\{4, 24, 44, 64, 84, 104, 124\}$

room $\{0, 2, 4, 6\}$

report $\{4, 44, 84, 124\}$

Clue 2 Set 3

1. Researchers in Antarctica discovered a warm sea current under a glacier that is causing the glacier to melt. The ice shelf of the glacier had a thickness of approximately 450 m when it was first discovered. The thickness of the ice shelf is decreasing at an average rate of 0.06 m per day.

Which function can be used to find the thickness of the ice shelf in meters x days since the discovery?

magic $t(x) = 450 - 0.06x$

credit $t(x) = -0.06(x + 450)$

belly $t(x) = 450 + 0.06x$

square $t(x) = 0.06(x + 450)$

2. What is the equation of the line that passes through the point $(-2, 7)$ and has a slope of zero?

snack $x = 7$

fall $y = -2$

water $x = -2$

board $y = 7$

3. Which value of x makes the equation $0.75(x + 20) = 2 + 0.5(x - 2)$ true?

deep 64

color -64

car 56

hole -56