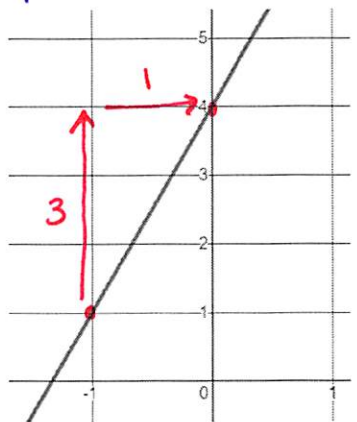

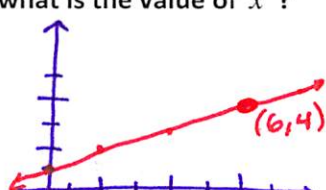


Key

Directions: Beginning in cell #1, answer the question. Search for your answer. When you find it, that cell becomes #2. Work that problem and then hunt for the answer. Continue in this manner until you complete the circuit. Do not guess at the end! Verify all problems and then check for the answer(s).

<p>Answer: 7 # <u>1</u></p> <p>Find the slope of a line that passes through the points $(-1, 4)$ and $(3, 12)$</p> $m = \frac{12-4}{3-(-1)} = \frac{8}{4} = 2$	<p>Answer: 4 # <u>5</u></p> $m = \frac{2-(-6)}{32-(-8)} = \frac{8}{40} = \frac{1}{5}$ <p>A line passes through the points $(-8, -6)$ and $(32, 2)$. Write an equation in point-slope form. If the point $(7, y)$ is on the line, what is y?</p> $y - 2 = \frac{1}{5}(x - 32)$ $y - 2 = \frac{1}{5}(7 - 32)$ $y - 2 = \frac{1}{5}(-25)$ $y - 2 = -5$ $y = -3$
<p>Answer: -3 # <u>6</u></p> $m = \frac{33-54}{6-3} = \frac{-21}{3} = -7$ <p>Andrea has a chipotle giftcard for her birthday. She buys the same meal for the same price each visit. After 3 visits, she has \$54 remaining. After 6 visits, she has \$33 remaining. How many meals can Andrea buy in total with the giftcard?</p> $y - 33 = -7(x - 6)$ $0 - 33 = -7(x - 6)$ $4.71 = x - 6$ $x \approx 10.71 \rightarrow 10 \text{ meals}$	<p>Answer: 0 # <u>8</u></p> <p>What is the slope of the graphed line?</p> $m = 3$ 
<p>Answer: -2 # <u>10</u></p> $m = 2$ $(x_1, y_1) = (2, 1)$ <p>Sketch a graph of the linear equation $y - 1 = 2(x - 2)$. The point $(5, y)$ is on the line, what is y?</p> $y - 1 = 2(5 - 2)$ $y - 1 = 2(3)$ $y - 1 = 6$ $y = 7$ 	<p>Answer: 10 # <u>7</u></p> <p>A line passes through the points $(-2, 5)$ and $(4, 5)$. What is the slope of the line?</p> $m = \frac{5-5}{4-(-2)} = \frac{0}{6} = 0$
<p>Answer: -4 # <u>3</u></p> <p>Sketch a graph of the linear equation $y = \frac{1}{2}x + 1$. If the line contains the point $(x, 4)$, what is the value of x?</p> $x = 6$ 	<p>Answer: 6 # <u>4</u></p> $m = \frac{750-1350}{14-10} = \frac{-600}{4} = -150$ <p>George buys a new 4K TV for \$2850 on a payment plan. After 10 months, he owes \$1350. After 14 months, he owes \$750. Write an equation in point-slope form. After how many months will George owe \$2250?</p> $y - 750 = -150(x - 14)$ $2250 - 750 = -150(x - 14)$ $1500 = -150(x - 14)$ $-10 = x - 14$ $4 = x$ $x = 4$
<p>Answer: 3 # <u>9</u></p> <p>An equation given in point-slope form is $y - 12 = 0.25(x + 2)$. What is the x-coordinate of the given point in the equation?</p> $y - 12 = 0.25(x - (-2))$ $x = -2$	<p>Answer: 2 # <u>2</u></p> <p>A line has a slope of $-\frac{1}{3}$ and passes through the point $(-27, 5)$. What is the y-intercept?</p> $5 = -\frac{1}{3}(-27) + b$ $5 = 9 + b$ $b = -4$