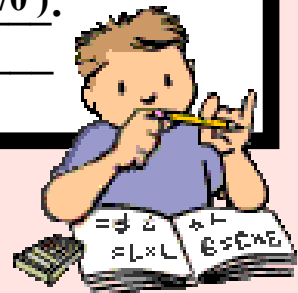


How am I doing?

1. What is the slope of the x-axis? ----- 0.
2. Perpendicular lines have opposite reciprocal slopes.
3. What is the slope perpendicular to the y-axis? 0
4. Parallel lines have the same slope.
5. The slope of the y-axis is undefined (1/0).
6. The slope parallel to $-5/7$ is $-5/7$.
7. The slope perpendicular to $6/11$ is $-11/6$.
8. The slope parallel to the y-axis is undefined (1/0).
9. Calculate the slope of $(2, -5)$ $(3, 2)$. 7

$$\frac{y_2 - y_1}{x_2 - x_1}$$
$$\frac{-2 - (-5)}{3 - 2}$$





To join the local gym. Karim pays a start-up fee of \$99.00, plus a monthly fee of \$29.00.

m =

b =

x =

y =

- a) Write an equation for the total cost, C dollars, for n months at the gym.
- b) Suppose Karim went to the gym for 23 months. What was the total cost?
- c) Suppose the total cost was \$505. For how many months did Karim use the gym?
- d) Could the total cost be exactly \$600? Justify your answer.



- a) Write an equation for the total cost, C dollars, for n months at the gym.

$$C = \$29.00n + \$99.00$$



- b) Suppose Karim went to the gym for 23 months. What was the total cost?

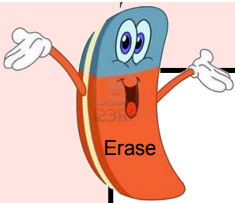
$$\begin{aligned} C &= 29(23) + 99 \\ &= 667 + 99 \\ &= 766 \end{aligned}$$

- c) Suppose the total cost was \$505. For how many months did Karim use the gym?

$$\begin{aligned} 505 &= 29n + 99 \\ 505 - 99 &= 29n \\ 406 &= 29n \\ n &= 14 \end{aligned}$$

- d) Could the total cost be exactly \$600? Justify your answer.

$$\begin{aligned} 600 &= 29n + 99 \\ \text{No, you can't buy a membership for 17.2 months. (17 or 18)} \quad 600 - 99 &= 29n \\ &501 = 29n \\ &n = 17.2 \end{aligned}$$



1. State the slope perpendicular to $y = -3/8x - 4$

$$\text{Slope} = 8/3$$

2. State the slope parallel to $y = -7x + 3$

$$\text{Slope} = -7$$

3. State the slope perpendicular to $y = 6x + 2/3$

$$\text{Slope} = -1/6$$

4. State the slope perpendicular to $y = -8 - 4/5x$

$$\text{Slope} = 5/4$$