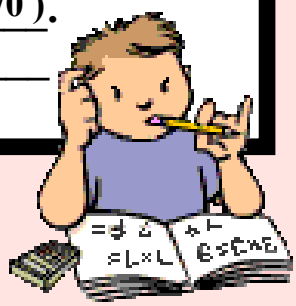
# How am I doing?

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



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

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

$C = 29n + 99$

**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.**

$m = 29$

$b = 99$

$x = \#\text{ of months}$ (n)

$y = \text{Total } \$$ (C)

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?**

$C = 29n + 99$

$C = 29(23) + 99$
$= 667 + 99$
$= 766$

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

$C = 29n + 99$

$505 = 29n + 99$
$505 - 99 = 29n$
$406 = 29n$
$n = 14$

14 months

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

No, you can't buy a membership for 17.2 months. (17 or 18)

$600 = 29n + 99$
$600 - 99 = 29n$
$501 = 29n$
$n = 17.2$