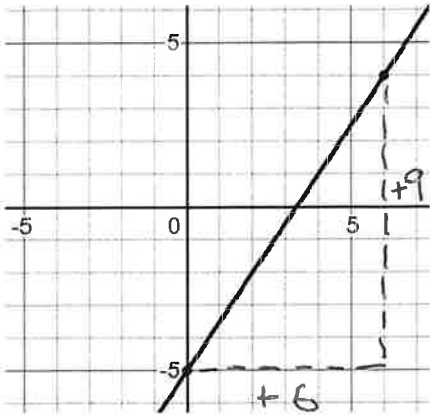
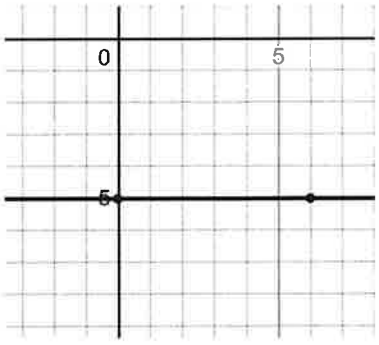
Proficiency Check 7.1 – Slope Part 1

Perform the following operations and write the answer in Descending Order.

Emerging	Emerging
1. What is the slope of the line that passes through the points $(3,-2)$ *and* $(-5,7)$ pt 1 pt 2 $m = \frac{y_2 - y_1}{x_2 - x_1}$ $m = \frac{7-(-2)}{-5-3} \rightarrow \frac{7+2}{-8} = \frac{9}{-8}$ $m = -\frac{9}{8}$	2. What is the slope of the following line.  $\frac{9}{6} = \frac{3}{2}$
Proficient	**Proficient**
3. What is the slope of the following line.  Horizontal line has no rise so $\frac{\text{RISE}}{\text{RUN}} = \frac{0}{\text{Run}}$ $m = 0$	4. Does the following point exist on the given line? $(2,-5);\ y = \frac{1}{2}x - 6$ x y $-5 = \frac{1}{2}(2) - 6$ $-5 = 1 - 6$ $-5 = -5$ ✓ YES!

Extending

5. Find any three points that exist on the line: $y = -\frac{4}{7}x + 2$

Pick any 3 points for x, but be strategic. With a denominator of 7 pick multiples of 7.

I'll pick:

$x = 7 \rightarrow y = -\frac{4(7)}{7} + 2 \rightarrow y = -4 + 2 \quad y = -2$ (7, -2)

$x = -7 \rightarrow y = -\frac{4}{7}(-7) + 2 \rightarrow y = 4 + 2 \quad y = 6$ (-7, 6)

$x = 14 \rightarrow y = -\frac{4(14)}{7} + 2 \rightarrow y = -8 + 2 \quad y = -6$ (14, -6)