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x	years	2000	2002
y	\$	345	408

Rate of Change
Formula : $m = \frac{y_2 - y_1}{x_2 - x_1}$

$$15.) \quad \frac{408 - 345}{2002 - 2000} = \frac{63}{2} = \frac{31.5 \text{ billion}}{1}$$

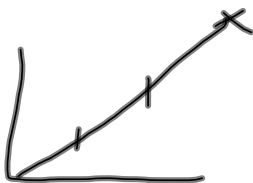
$$16.) \quad \frac{\$ 31.5 \text{ billion}}{1 \text{ yr.}}$$

yrs	1995	2001 + 4	2005
\$	1342	1474	

17.)
$$\frac{1474 - 1342}{2001 - 1995} = \frac{132}{6} = \boxed{\frac{22^m \text{ billion}}{1 \text{ yr.}}}$$

$$\begin{array}{r} 22 \\ \times 4 \\ \hline \$88 \text{ billion} \end{array}$$

$$\begin{array}{r} \$1474 \text{ billion} \\ + 88 \\ \hline \$1562 \text{ billion} \end{array}$$

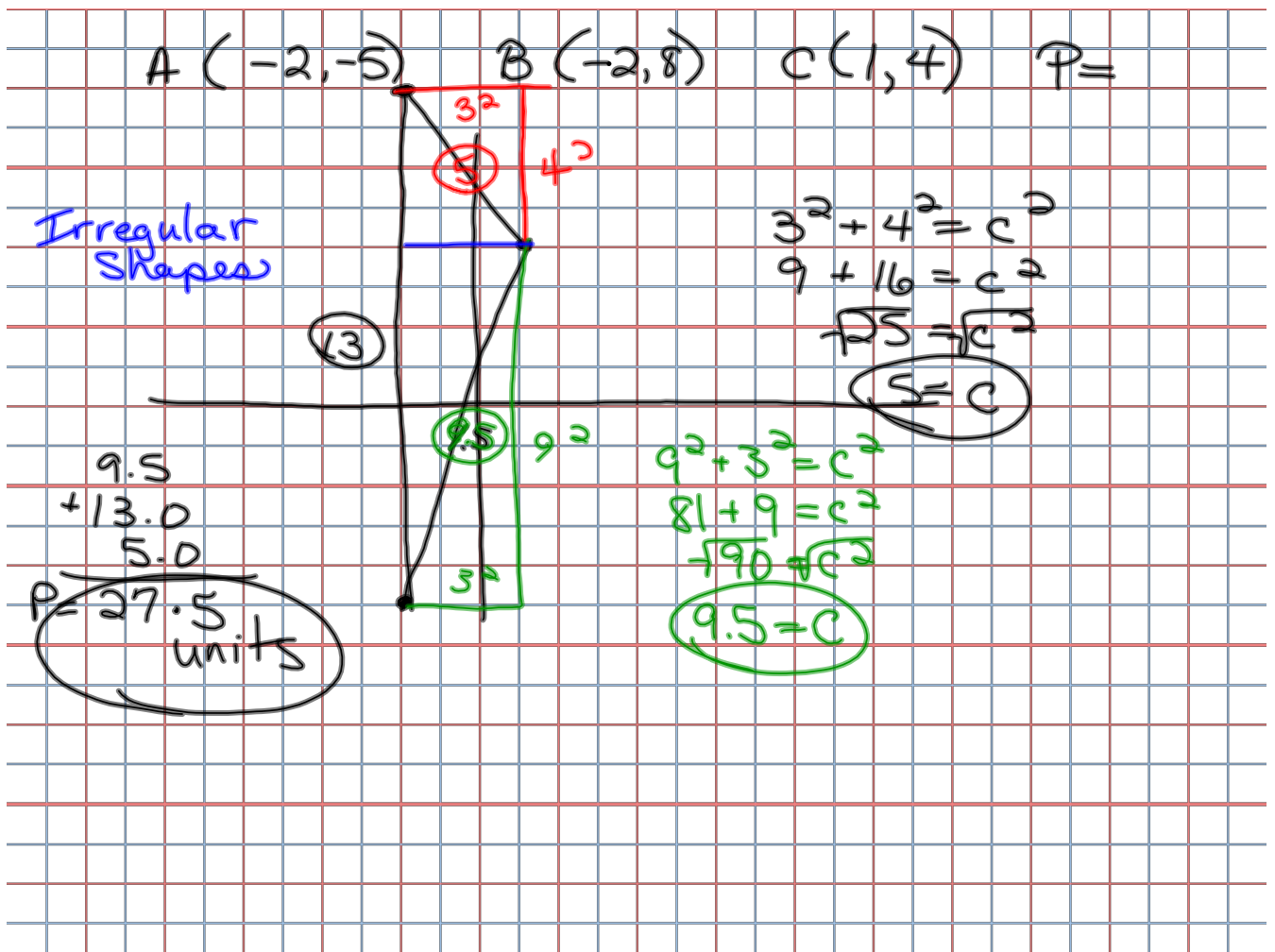


22.

Days X	56 In. y
0	3
9	9

$$\frac{9-3}{9-0} = \frac{6}{9} = \frac{2}{3} \text{ in per day}$$

$$26. \quad \frac{3 - 7}{\begin{array}{l} 4 - (-4) \\ 4 + (+4) \\ 8 \end{array}} = \frac{-4}{8} = \boxed{-\frac{1}{2}}$$



4-3 Slope
 W W M S D S ?

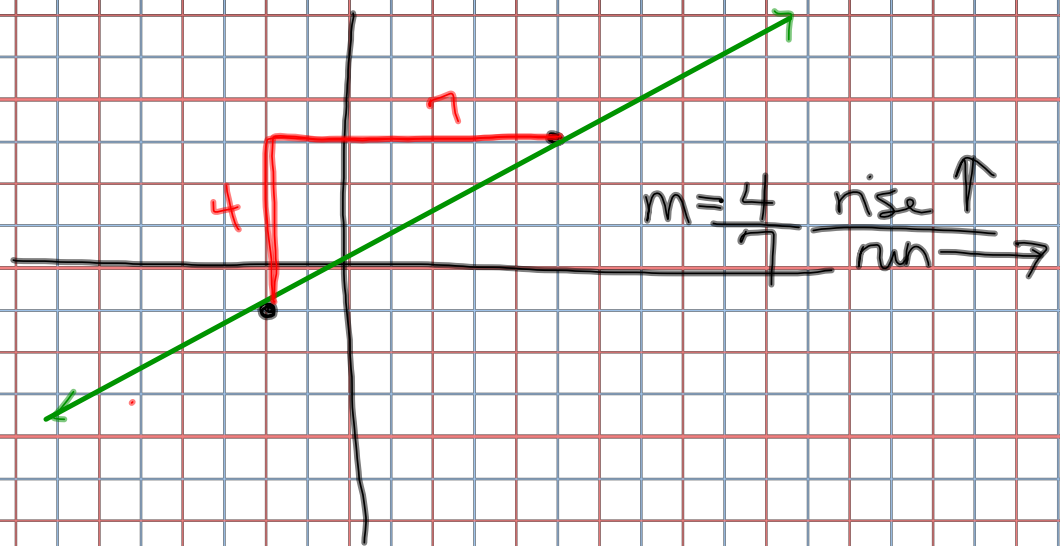


Slope = $\frac{\text{rise} \uparrow}{\text{run} \rightarrow}$ Undefined

$m = \frac{y_2 - y_1}{x_2 - x_1}$
 Slope

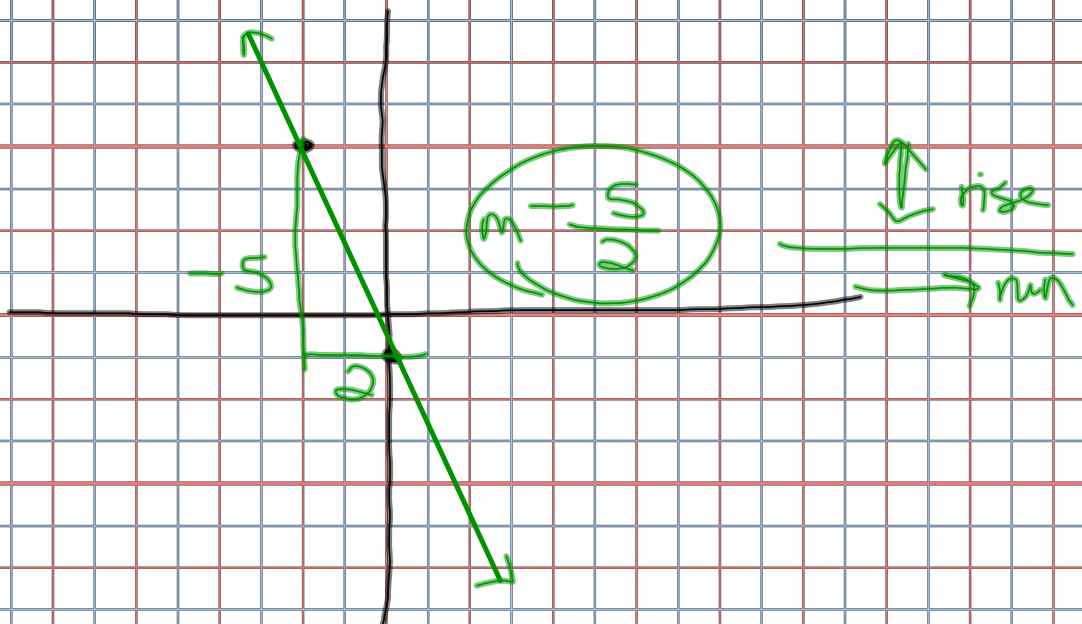


Always run right!

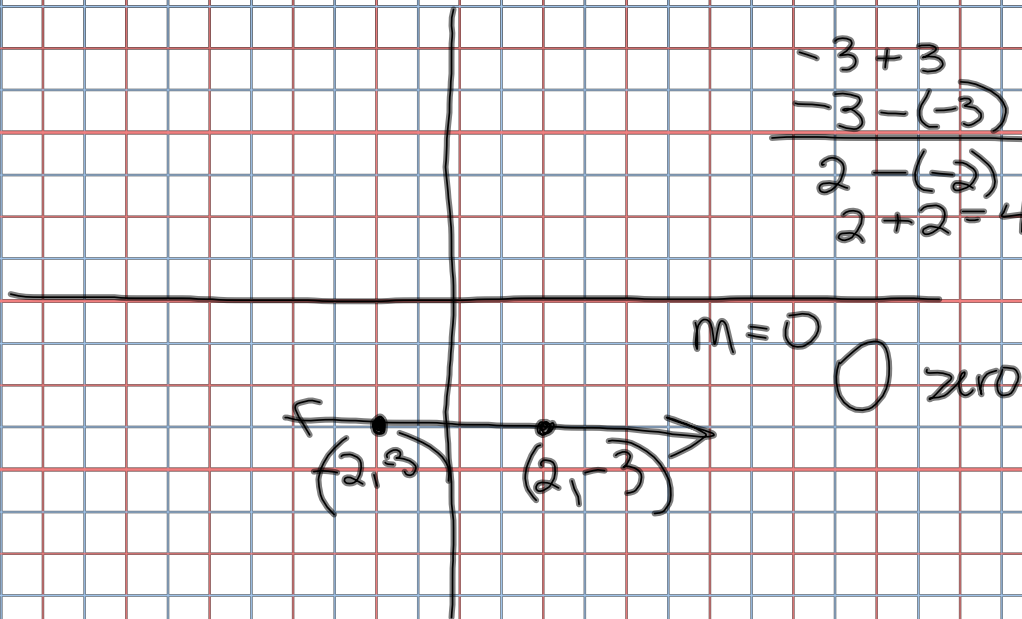


$$a.) \frac{3}{4}$$

$$b.) \frac{-5}{2}$$

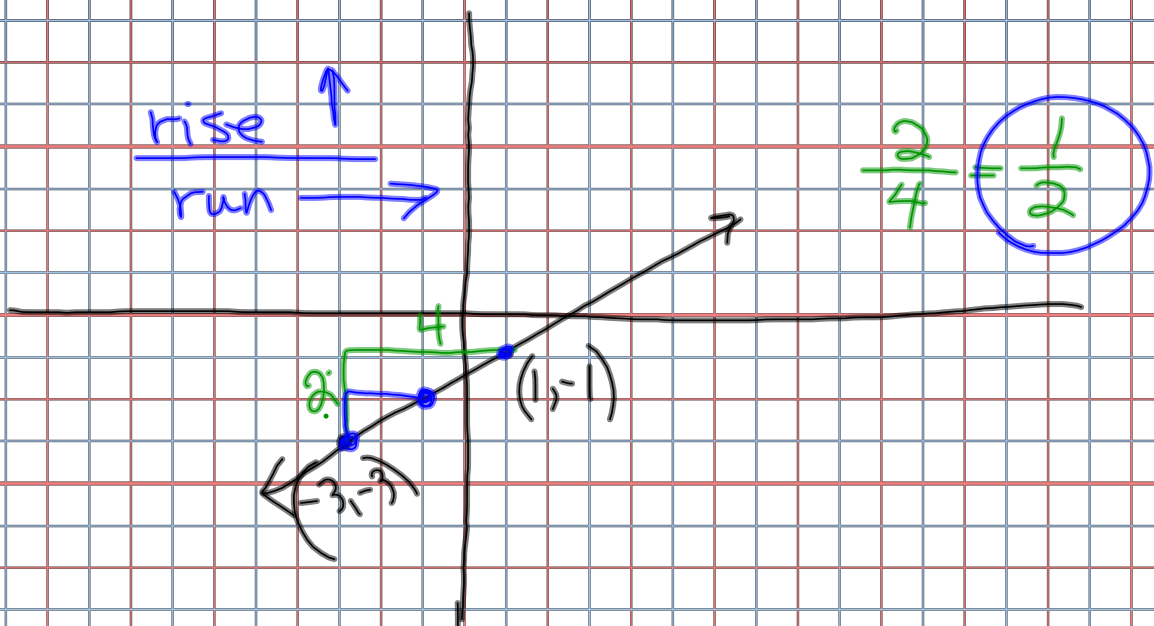


e)



$$\begin{array}{r} -3 + 3 \\ -3 - (-3) \\ \hline 0 \\ 2 - (-2) \\ \hline 4 \\ 2 + 2 = 4 \end{array} \quad \begin{array}{l} 0 \\ 4 \\ \text{=0} \end{array}$$

6.)



d.)

x	-6	-2	2	6
y	-2	-1	0	1

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$
$$m = \frac{-1 - (-2)}{-2 - (-6)} = \frac{-1 + 2}{-2 + 6} = \frac{1}{4}$$

$m = \frac{1}{4}$

