

BE-1A TUESDAY 2-19-08

WRITE THE EOL in S-I form:

①  $m = 4$      $b = -2$

②  $m = -2$      $b = 3$

③  $m = 1$      $b = 0$

Find  $m$  if the line goes THROUGH the two points:

④  $(4, 6), (8, 10)$

⑤  $(-3, -1), (6, -4)$

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Summary: • if you know  $m, b$  you can write EOL  
• if you know 2 points you can find  $m$   
Goal  $\Rightarrow$  • if you know 2 points, write EOL

1.  
Steps to find EOL in S-I form if you know 2 points:

- Find  $m$
- Use  $m$  and  $y = mx + b$  and AN  $(x, y)$  pair to find  $b$
- Use  $m, b$  to write EOL

Ex) Find EOL through  $(-3, -1), (6, -4)$

$$m \Rightarrow (-3, -1), (6, -4)$$

$$m = \frac{-4 + 1}{6 + 3} = \frac{-3}{9} = \boxed{-\frac{1}{3} = m}$$

$$y = mx + b \quad \text{use } (-3, -1)$$

$x, y$

$$-1 = -\frac{1}{3} \cdot -3 + b$$

$$-1 = \frac{3}{3} + b$$

$$-1 = 1 + b$$

$$\begin{array}{r} -1 \\ -1 \end{array} \quad \begin{array}{r} -1 \\ -1 \end{array}$$
$$\boxed{-2 = b}$$

$$\therefore \boxed{y = -\frac{1}{3}x - 2}$$

Ex 2 Pg 281

Find EOL through:

ex)  $(-3, -3), (1, 5)$

$$y = 2x + 3$$

ex)  $(0, 1), (2, -9)$

$$y = -5x + 1$$

Summary: EOL through 2 points

- Find  $m$
- Use  $m, y = mx + b, (x, y)$  to find  $b$
- Use  $m, b$  to write EOL

Homework: Page 283 # 7 to 9.  
(Ch. 5-4)

OPTIONAL  $\Rightarrow$  FAMILIES OF GRAPHS - Pg 278-279

• TI-82

• ONLINE