

Algebra 1 4.1

Write and graph linear equations in slope-intercept form.

Model data with equations in slope-intercept form

linear

slope

$$y = mx + B$$

y-intercept

$$y = mx + \underline{b}$$

← Where start?

constant function (horizontal)

bicycles and constant slope

↑
rate of change

Song

Whiteboards

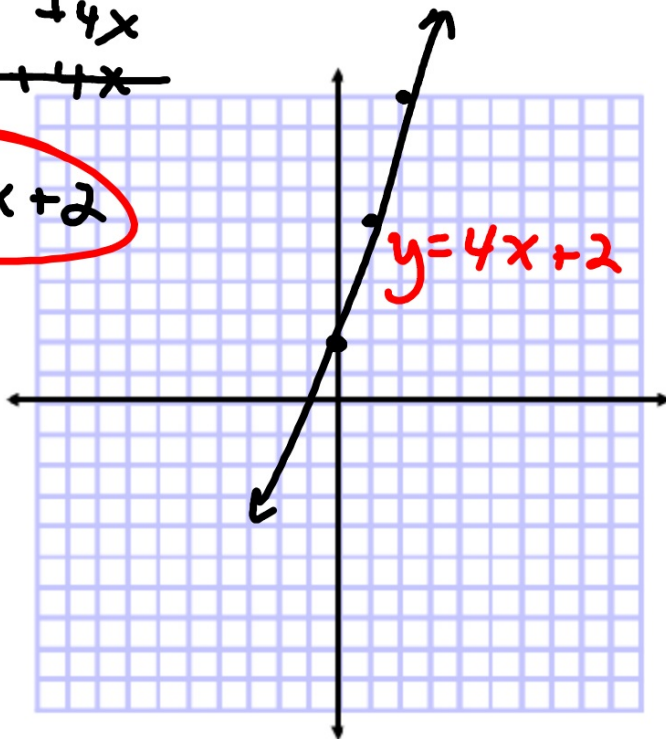
Youtube:ymca

5. $-4x + y = 2$

$$\begin{array}{r} +4x \quad +4x \\ \hline y = 2 + 4x \end{array}$$

$y = 4x + 2$

6. $2x + y = -6$



Guided Practice

$$y = 5x + -1160$$

m
↓

5. **FUNDRAISERS** The band boosters are selling sandwiches for \$5 each. They bought \$1160 in ingredients.

- A. Write an equation for the profit P made on n sandwiches.
- B. Graph the equation.
- C. Find the total profit if 1400 sandwiches are sold.

When do they make a profit?

$$P = 5n + -1160$$

$$0 = 5n + -1160$$

$$\frac{1160}{5} = \frac{5n}{5} \quad m = \frac{5}{1}$$

$$232 = n$$

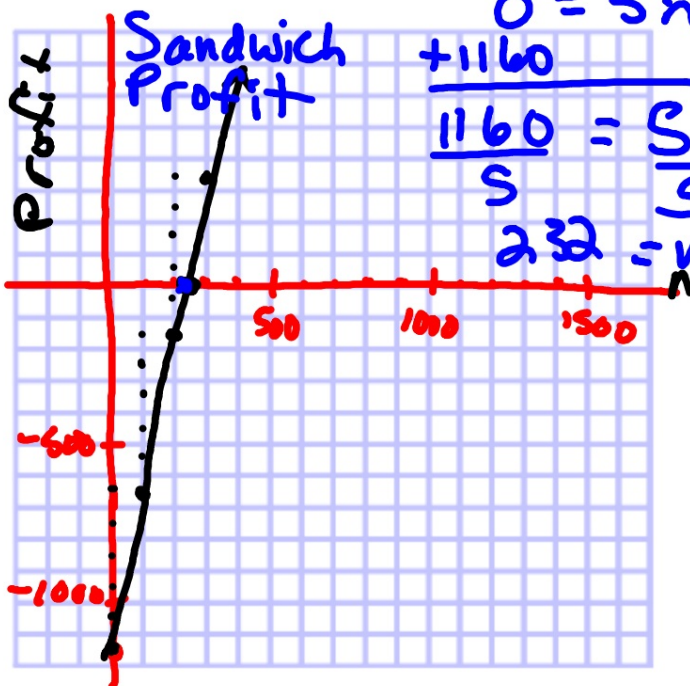
$$P = 5n + -1160$$

$$= 1400 \cdot 5 + -1160$$

$$= \$5840$$

$$\frac{500}{100}$$

$$200 - 300 \text{ is}$$



turn in WB
p. 222 53-57
71-83o