

Please go to your seats.

(No groups)

Complete BW #14 and these ↓

① Write the equation of the line perpendicular to $2x - 5y = 10$ that passes through $(4, -3)$.

② Write the equation of the line through $(10, 5)$ & $(24, 11)$. Use fractions - not decimals.

① C

② C

③ B

④ A

⑤ B

⑥ B

⑦ C

⑧ D

⑨ D

⑩ B

11-14 C

⑮ D

$$x - 4y = -16$$

$$-x \qquad -x$$

$$-4y = -x - 16$$

$$\overline{-4} \quad \overline{-4} \quad \overline{4}$$

$$y = \frac{1}{4}x + 4$$

$$m_{\perp} = \frac{-4}{1}$$

① $(6, -7)$ $(-15, 9)$

$$m = \frac{9 - (-7)}{-15 - 6} = \frac{16}{-21}$$

② $g(n) = n^2 - 4$

$$g(n-2) = (n-2)^2 - 4$$

FOIL

$$(n-2)(n-2) - 4$$

$$n^2 - 2n - 2n + 4 - 4$$
$$\boxed{n^2 - 4n}$$



BW
①

Find slope of $2x - 5y = 10$.

$$\frac{-5y}{-5} = \frac{-2x + 10}{-5}$$

$$y = \left(\frac{2}{5}\right)x - 2$$

→ m

$$m_{\perp} = -\frac{5}{2}$$

$$\therefore \begin{matrix} x & y \\ (4, & -3) \end{matrix}$$

$$y = mx + b$$

$$-3 = -\frac{5}{2} \cdot 4 + b$$

$$-3 = -10 + b$$

$$b = 7$$

$$y = -\frac{5}{2}x + 7$$

$$\textcircled{2} (10, 5) \quad (24, 11)$$

1st find slope

$$\frac{11-5}{24-10} = \frac{6}{14}$$

$$m = \frac{3}{7}$$

$$y = mx + b$$

$$5 = \frac{3}{7} \cdot 10 + b$$

$$\frac{35}{7} - \frac{30}{7} = \frac{30}{7} + b - \frac{30}{7}$$

$$\frac{5}{7} = b$$

$$y = \frac{3}{7}x + \frac{5}{7}$$

BW#14

$$17\frac{1}{2}c \div \frac{3}{4}$$

$$(17 + 1/2) \div (3/4)$$

$$\frac{35}{2} \cdot \frac{4}{3} = \frac{70}{3} = \boxed{23} \text{ A}$$

$$\textcircled{2} \quad y^2 - 5 = 3y - 5$$

Solve.

$$\begin{array}{r} y^2 = 3y \\ -3y \quad -3y \\ \hline \end{array}$$

$$y^2 - 3y = 0$$

$$y(y-3) = 0$$

$$y = 0$$

$$\begin{array}{l} y - 3 = 0 \\ y = 3 \end{array}$$

B

$$\begin{aligned} x + 3y &= 19 \\ 3x + y &= 5 \end{aligned}$$

$$x + y = ?$$

$$4x + 4y = 24$$

$$4$$

$$x + y = 6 \quad \textcircled{D}$$

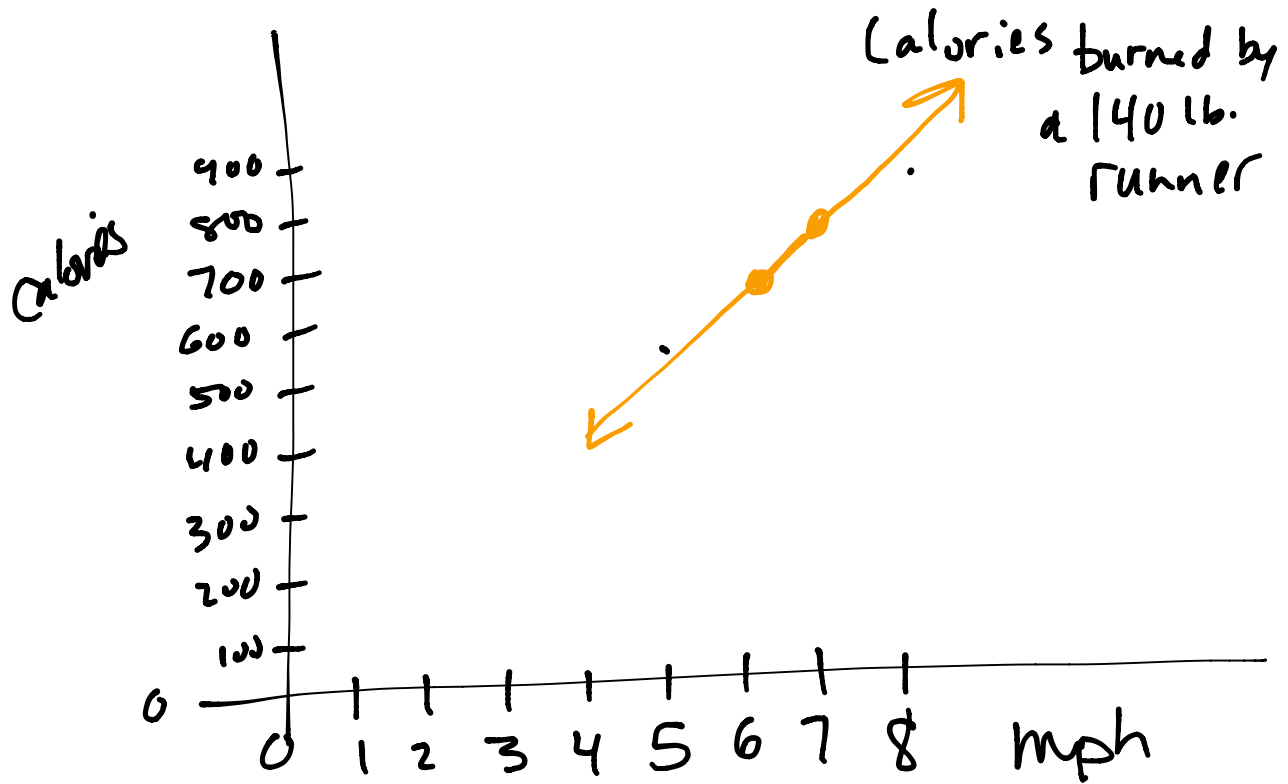
Graph paper

speed mph	x	y	calories burned in 1 hr.
5			508
6			636
7			731
8			858

Scatterplot

How do I
write a
Line of Best
fit?

p. 81



use 2nd & 3rd data point to write eqn of line

$$(6, 636) \text{ \& } (7, 731)$$

$$m = \frac{731 - 636}{7 - 6} = \frac{95}{1} = 95$$

$$y = mx + b$$

$$(6, 636) \quad m=95$$

$$y = mx + b$$

$$636 = 95 \cdot 6 + b$$

$$636 = 570 + b$$

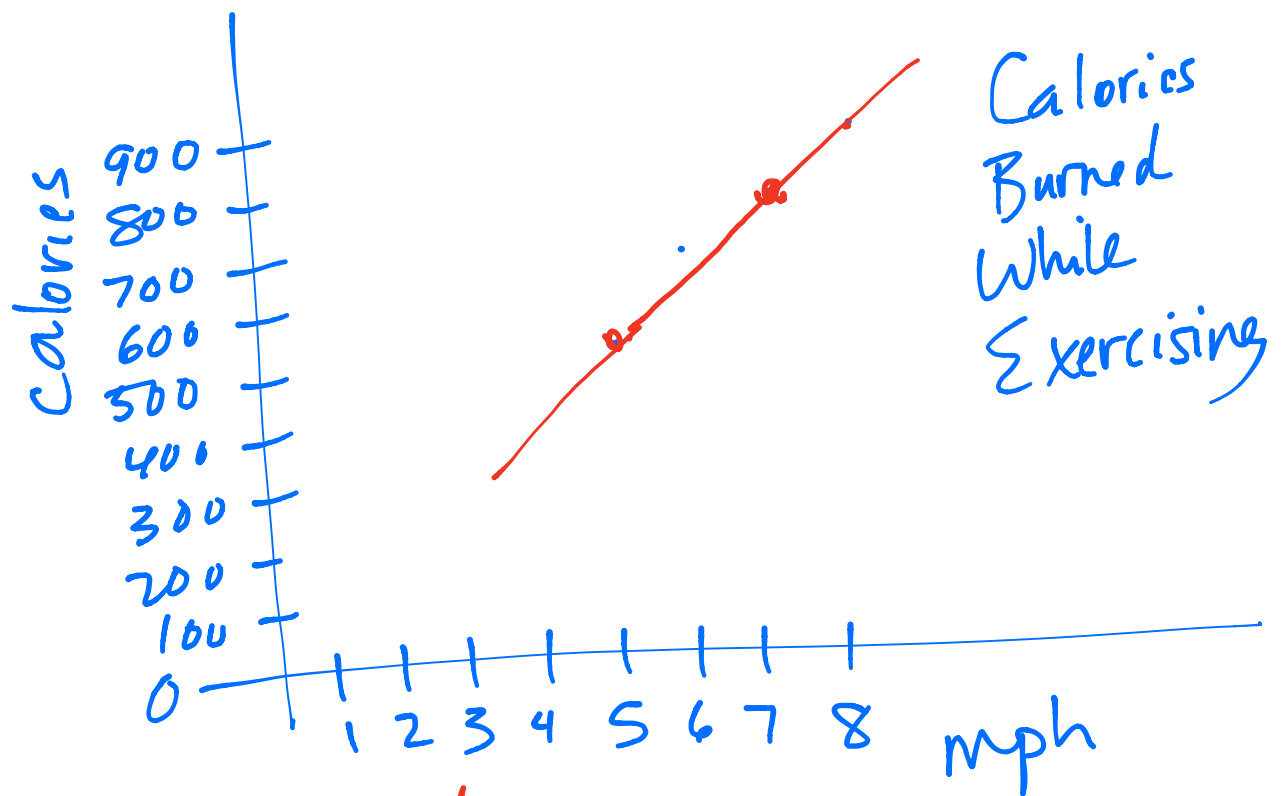
$$b = 66$$

$$y = 95x + 66 \rightarrow$$

$$y = 111.5x - 49.5$$

$x \rightarrow$ speed of runner

$y \rightarrow$ calories burned



1st & 3rd

(5, 508)

(7, 731)

$$m = \frac{731 - 508}{7 - 5} = \frac{223}{2} = 111.5$$

$$y = mx + b$$

$$508 = 111.5 \cdot 5 + b$$

$$b = -49.5$$

$$y = 111.5x - 49.5$$

P. 83: 4, 5, 19, 20
use graph paper!