Algebra 1   4.2
Write an equation of a a line given a slope and a point
Write an equation of a line given two points

slope
y-intercept
linear equation
slope-intercept form $y = mx + B$
constraints requirements
linear extrapolation prediction

activity: speed dating

Whiteboards

Write the equation of the line:

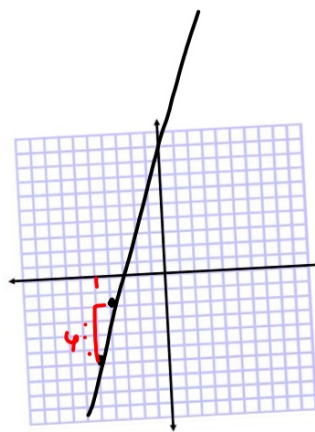h. $(-4, -2)$ and $(-5, -6)$

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

$y = 4x + B$

$-2 = 4 \cdot -4 + B$

$-2 = -8 + B$

$+8 \qquad +8$

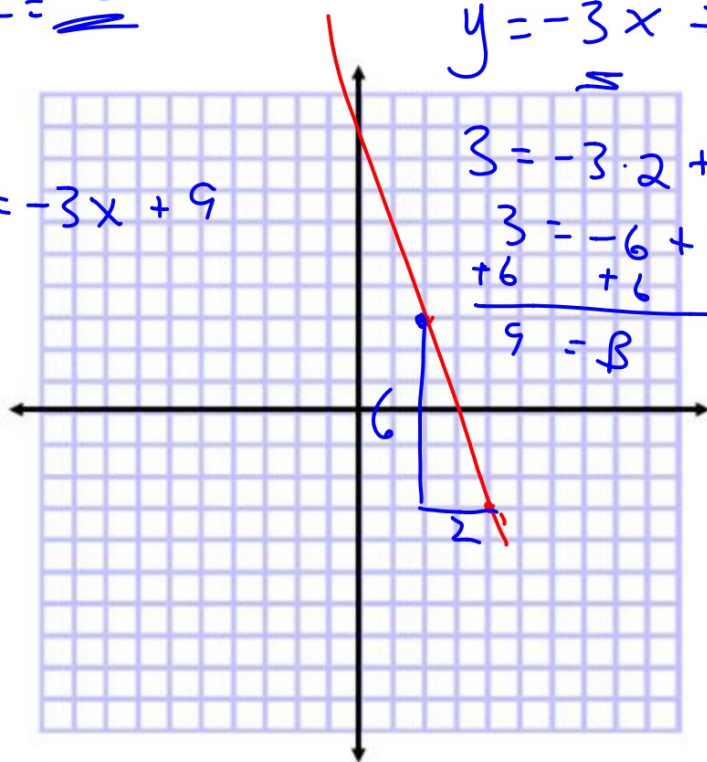$\overline{}$

$6 = B$

$y = 4x + 6$

Write an equation of the line that passes through each pair of points.

5. $(4, -3), (2, 3)$

6. $(-7, -3), (-3, 5)$

$$\frac{-6}{2} = \frac{-3}{}$$

$$y = -3x + 9$$

$$y = -3x + B$$

$$3 = -3 \cdot 2 + B$$

$$3 = -6 + B$$

$$\begin{array}{cc} +6 & +6 \\ \hline 9 & = B \end{array}$$

Speed dating

1. Solve your problem.
2. Check with me.
3. You are now the expert on this problem.
4. Wait for instructions.

weight

$y = 3x + 12$

$y = 3 \cdot 20 + 12$

$= 60 + 12$

$= 72$

$(20, 72)$

time