MDI

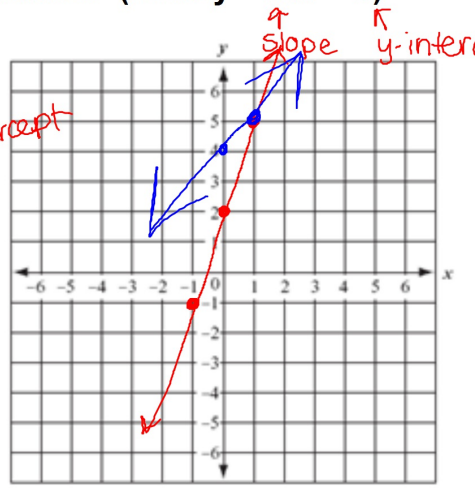
Graph the following equation. (Hint: y = mx + b)

$y = 3x + 2$

slope = rise/run = 3/1

y-intercept

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



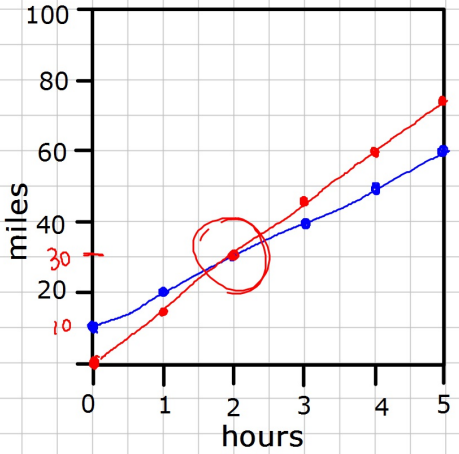
LAUNCH:

Katie & Ben are going on a 5 hour bike ride

Katie can ride her bike at 10mph.

Ben can ride about 15mph.

(2, 30)



Ben knows he is much faster so he gives Katie a 10 mile head start. Will Ben catch up to Katie? After how many hours?

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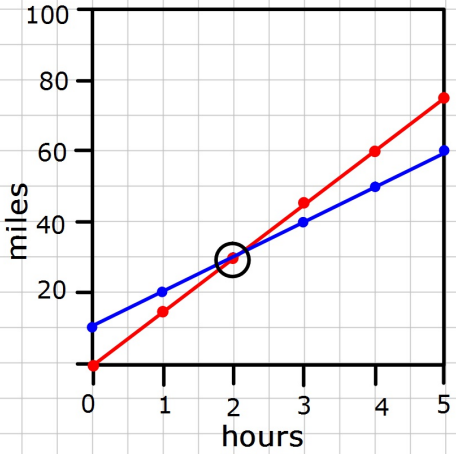

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Solving Systems of Equations: GRAPHING

Learning Intentions - To understand the graphical interpretations of a system of equations.

Success Criteria - I can solve a system of linear equations by graphing.

A **system of equations** is a collection of two or more equations with a same set of unknowns.

A **solution** of a system of linear equations is an ordered pair that satifies EACH equation.

The ordered pair (x,y) has to work for BOTH equations

For example:

(3,5) is a solution of both equations:

$x + y = 8$ $\quad$ $5x - 2y = 5$

$3 + 5 \stackrel{?}{=} 8$ $\quad$ $5(3) - 2(5) \stackrel{?}{=} 5$

$8 = 8$ ✓ $\quad$ $15 - 10 \stackrel{?}{=} 5$ $\quad$ $5 = 5$ ✓