6.5 PreQuiz: Slope-intercept form of linear equations

1. Find the equation of the given line $\overleftrightarrow{AB}$, $A(0,2)$, $B(3,5)$.

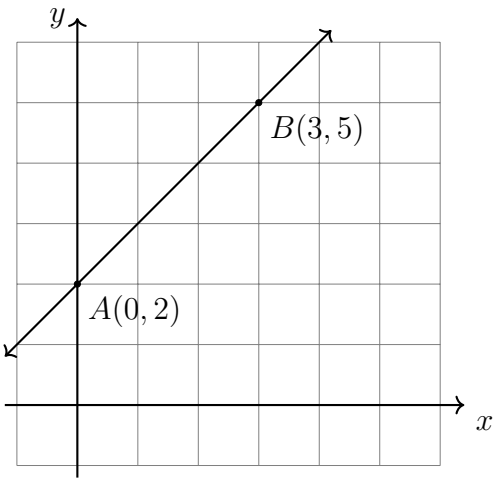
   (a) Find the slope.

   $m =$

   (b) Write down the y-intercept.

   $b =$

   (c) Write the equation of the line.



2. Is the point $(4,7)$ on the line $y = 3x - 5$? Support your answer algebraically.

3. Complete each statement about linear equations.

   (a) What is the slope of a horizontal line?

   (b) What is the y-intercept of the line $y = 2x + 3$?

   (c) What is the slope of the line $y = x - 5$?

   (d) Which has an undefined slope, a vertical or horizontal line?

   (e) What is the y-intercept of the line $y = -2x$?

4. The line j has the equation $y = 2x - 3$.

   (a) What is the slope of the line k, given $k \parallel j$?

   (b) What is the slope of the line l, given $l \perp j$?

5. The line has the equation $y = -4x + 11$.
   (a) Write down it's slope and y-intercept. $m =$ $b =$
   (b) Is the point $(3, 1)$ on the line? Justify your answer.

6. The line l has the equation $y = -\frac{3}{5}x + 4$. To each line below, circle whether l is parallel, perpendicular, or neither.
   (a) parallel perpendicular neither $y = \frac{3}{5}x - 2$
   (b) parallel perpendicular neither $y = \frac{5}{3}x + 9$
   (c) parallel perpendicular neither $y = -\frac{3}{5}x + 1$
   (d) parallel perpendicular neither $y = -\frac{5}{3}x - 7$

7. Write the linear equation $6x + 2y = 4$ in the form $y = mx + c$.

8. A line has a slope of $-\dfrac{3}{2}$ and passes through the point $(0, 2)$. Write down the equation of the line in the form $y = mx + b$.