11.16 Pretest: Function parameters

1. The standard form of a linear equation is ax + by = c, where x and y are variables and a, b, and c are parameters (fixed numbers).

For example if the equation of a line is 3x + 2y = 5, write down the value of each parameter.

- (a) a =
- (b) b =
- (c) c =
- 2. The slope-intercept form of a linear equation is y = mx + b. The parameter m quantifies the slope and b the y-intercept.

For the equation $y = \frac{1}{2}x - 7$, write down the value of each parameter...

- (a) m =
- (b) b =
- 3. The point-slope form of a linear equation is y k = m(x h). Again, the parameter m represents the slope. The parameters h the h are the coordinates of a point that the line passes through.

For the equation $y-3=-\frac{3}{5}(x-7)$, write down the value of each parameter..

- (a) m =
- (b) h =
- (c) k =
- (d) Write down a point that the line passes through as a coordinate pair.
- 4. Rewrite each equation in the required form.
 - (a) y = 5x 3 in the form ax + by = c (b) y + 3 = 2(x + 1) in the form y = mx + b

- 5. (a) Find the slope m of the line 2x + 4y = 12.
 - (b) Write down the slope perpendicular to the line, m_{\perp} .
- 6. Write down the slope perpendicular to the given slope.
 - (a) $m = \frac{1}{2}$ $m_{\perp} =$

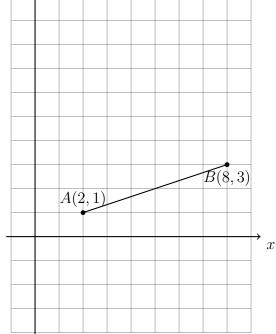
(b) m = -6 $m_{\perp} =$

 y_{\uparrow}

- 7. Write down the equation of the line through (1, -3) with a slope of 4.
- 8. The line segment \overline{AB} , A(2,1) and B(8,3), is shown below.
 - (a) Mark the midpoint M of \overline{AB} . Label it as an ordered pair.
 - (b) Find the slope of \overline{AB} .



(d) Write down the equation of the perpendicular bisector of \overline{AB} .



(e) Draw the perpendicular bisector on the graph.