6.6 Do Now: Distance formula, perpendicular and parallel slopes

1. What is the slope of a line parallel to the line $x - 2y = 1$?

2. The line l has the equation $y = -\frac{1}{2}x + 3$.

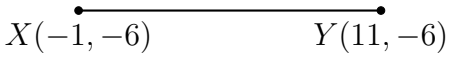
   (a) What is the slope of the line k, given $k \parallel l$?

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

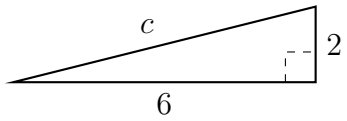
3. Write down the slope perpendicular to the given slope.

   (a) $m = -\frac{3}{5}$ $m_\perp =$ (b) $m = 0.75$ $m_\perp =$

4. Find XY, $X(-1, -6)$ and $Y(11, -6)$.



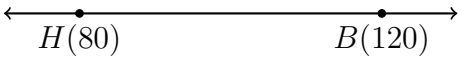
5. Find c.



6. What is the length of $\overline{CD}$ if $C(3, 1)$ and $D(7, -2)$?

   Use $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

7. What is the midpoint of $\overline{HB}$, $H(80)$ and $B(120)$?



8. Graph and label the two equations. Mark their intersection as an ordered pair.

$y = \frac{3}{2}x - 9$ $2x + 3y = 12$

Are the lines parallel, perpendicular, or neither? Justify your answer.