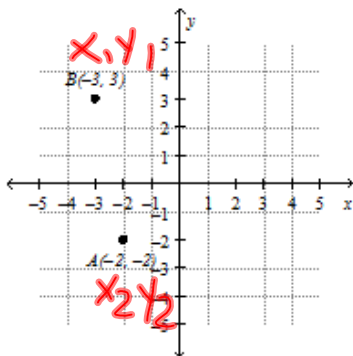


Welcome!!

Please complete the JSN quiz in your Google classroom!!!!

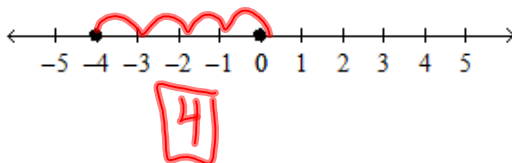
Sep 13-8:27 AM

1. What is the length of \overleftrightarrow{AB} ? Round to the nearest hundredth.



$$\begin{aligned}d &= \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} \\d &= \sqrt{(-2 - (-3))^2 + (-2 - 3)^2} \\&= \sqrt{1^2 + (-5)^2} \\&= \sqrt{1 + 25} \\&= \sqrt{26} \\&= \boxed{5.1}\end{aligned}$$

2. Find the distance between the points on the number line.

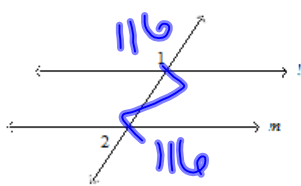


Sep 13-9:05 AM

3. Determine the slope of the line passing through $(-8, 4)$ and $(3, -7)$.

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{4 - (-7)}{-8 - 3} = \frac{11}{-11} = \boxed{-1}$$

4. Lines l and m are parallel. If $m\angle 1 = 116^\circ$, how many degrees is $m\angle 2$?



$$180 - 116 = \boxed{64 = m\angle 2}$$

Sep 13-9:05 AM

5. Determine the midpoint of the line segment connecting $(-2, -4)$ and $(-1, -1)$.

$$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right) = \left(\frac{-2 + (-1)}{2}, \frac{-4 + (-1)}{2} \right) = \boxed{\left(-\frac{3}{2}, -\frac{5}{2} \right)}$$

6. Find a line that is parallel to $y = 4x + 4$ and passes through the point $(-5, -3)$.

x_1, y_1 m b/c they parallel

$$y - y_1 = m(x - x_1)$$

$$y + 3 = 4(x + 5)$$

$$y + 3 = 4x + 20$$

$$\begin{array}{r} y + 3 = 4x + 20 \\ -3 \qquad -3 \\ \hline y = 4x + 17 \end{array}$$

Sep 13-9:07 AM

7. Are the lines $y = \frac{1}{5}x - 8$ and $y = -2 + \frac{1}{5}x$ parallel, perpendicular, or neither?

$$m = m$$

8. Write the equation of the line that has slope -2 and passes through $(-4, -5)$.

$$y - y_1 = m(x - x_1)$$

$$y + 5 = -2(x + 4)$$

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

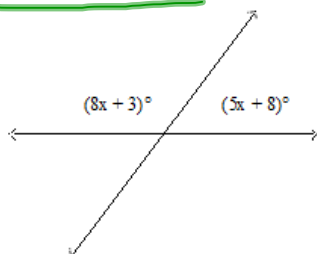
$$y = -2x - 13$$

Sep 13-9:07 AM

9. Determine the midpoint of the line segment with endpoints $(-9, 8)$ and $(9, 3)$.

$$\left(\frac{-9+9}{2}, \frac{8+3}{2} \right) = \left(\frac{0}{2}, \frac{11}{2} \right) = \left(0, \frac{11}{2} \right)$$

10. Find the value of x . Find the measures of the two supplementary angles.



$$8x + 3 + 5x + 8 = 180$$

$$13x + 11 = 180$$

$$13x = 169$$

$$x = 13$$

Sep 13-9:08 AM

1. Are the lines $y = \frac{3}{5}x - 8$ and $y = -8 + x$ parallel, perpendicular, or neither?

$m \neq m$

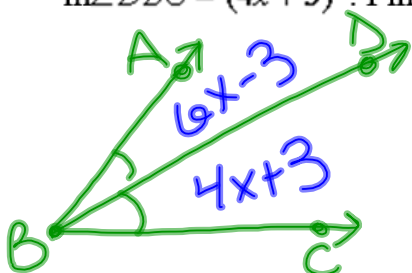
2. Find a line that is perpendicular to $y = -\frac{1}{2}x$ and passes through point $(2, 0)$.

$x, y, m \perp m = +\frac{2}{1} = 2$

$y - 0 = 2(x - 2)$
 $y = 2x - 4$

Sep 13-9:06 AM

3. \overrightarrow{BD} bisects $\angle ABC$, $m\angle ABD = (6x - 3)^\circ$, and $m\angle DBC = (4x + 3)^\circ$. Find $m\angle ABD$.



$$\begin{array}{r} 6x - 3 = 4x + 3 \\ -4x \quad -4x \\ \hline 2x - 3 = 3 \\ +3 \quad +3 \\ \hline 2x = 6 \end{array}$$

$$\begin{array}{r} x = 3 \\ 6(3) - 3 \\ 18 - 3 \\ \hline 15 = m\angle ABD \end{array}$$

4. Find a line that is parallel to $y = 4x + 8$ and passes through point $(-3, 0)$.

x, y, m

$y - 0 = 4(x - (-3))$
 $y = 4x + 12$

Sep 13-9:06 AM

5. Write an equation in slope-intercept form for the line parallel to $y = -x + 6$ that passes through the point $(9, 6)$.

$$y - 6 = -1(x - 9)$$

$$y - 6 = -x + 9$$

$$\begin{array}{r} y - 6 \\ +6 \end{array} = \begin{array}{r} -x + 9 \\ +6 \end{array}$$

$$\boxed{y = -x + 15}$$

6. The equations of four lines are given. Identify the perpendicular lines.

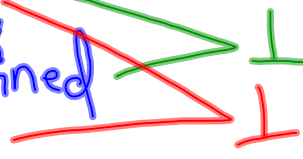
Line 1: $y = -6 \rightarrow \text{slope} = \phi$

Line 2: $y = -\frac{1}{4}x + 1 \rightarrow \text{slope} = -\frac{1}{4}$

Line 3: $x = -8 \rightarrow \text{slope} = \text{undefined}$

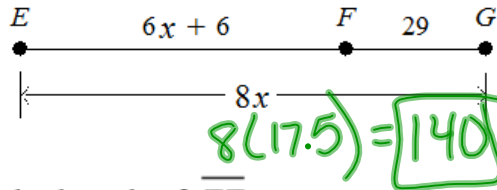
Line 4: $y + 5 = 4(x - 2) \rightarrow \text{slope} = 4$

$$\begin{array}{r} y + 5 = 4x - 8 \\ -5 \quad -5 \\ \hline y = 4x - 13 \end{array}$$



Sep 13-9:07 AM

7. F is between E and G . $EG = 8x$, $EF = 6x + 6$, and $FG = 29$. Find EG .



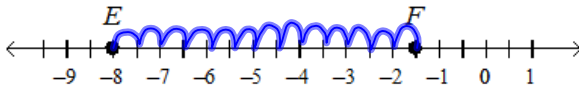
$$8(17.5) = \boxed{140}$$

$$6x + 6 + 29 = 8x$$

$$6x + 35 = 8x$$

$$\begin{array}{r} 6x + 35 = 8x \\ -6x \quad -6x \\ \hline 35 = 2x \\ \frac{35}{2} = \frac{2x}{2} \\ 17.5 = x \end{array}$$

8. Find the length of \overline{EF} .



$$\boxed{13}$$

Sep 13-9:08 AM

0. What is the equation of a line that has slope $\frac{2}{3}$ and passes through $(-6, 3)$?

$$y-3 = \frac{2}{3}(x+6)$$

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

$$y-3 = \frac{2}{3}x + 4$$

$$\begin{array}{r} +3 \\ +3 \end{array}$$

$$\boxed{y = \frac{2}{3}x + 7}$$

1. Determine the slope of the line containing points $(5, -3)$ and $(-6, -8)$.

$$\frac{-8 - (-3)}{-6 - 5} = \frac{-5}{-11} = \frac{5}{11}$$

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3. Find the distance between the points $(-2, 0)$ and $(6, -1)$.

$$d = \sqrt{(6 - (-2))^2 + (-1 - 0)^2}$$

$$= \sqrt{8^2 + 1^2} = \sqrt{64 + 1} = \sqrt{65}$$

4. Write the equation $5x + 4y = -17$ in slope-intercept form, and then find the slope and y-intercept.

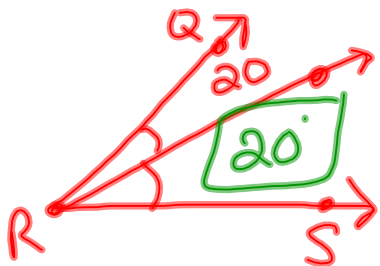
$$\begin{array}{r} 5x + 4y = -17 \\ -5x \quad -5x \\ \hline 4y = -5x - 17 \\ \frac{4y}{4} = \frac{-5x}{4} - \frac{17}{4} \end{array}$$

$$y = -\frac{5}{4}x - \frac{17}{4}$$

$$\boxed{\begin{array}{l} \text{Slope: } -\frac{5}{4} \\ \text{y-intercept: } -\frac{17}{4} \end{array}}$$

Sep 13-9:09 AM

5. \overrightarrow{RT} bisects $\angle QRS$. if $m\angle QRT = 20^\circ$, what is $m\angle QRS$?



Sep 13-9:09 AM