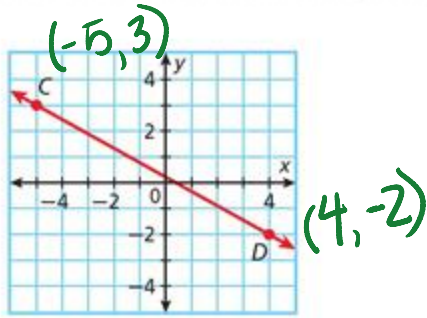


key!!

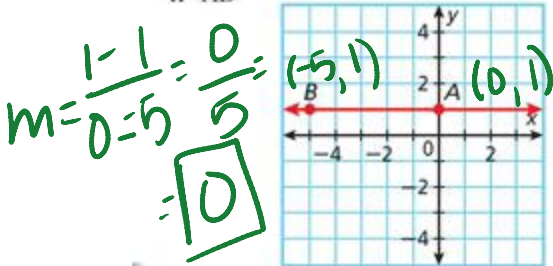
Use the slope formula to determine the slope of each line.

3. \overleftrightarrow{CD}



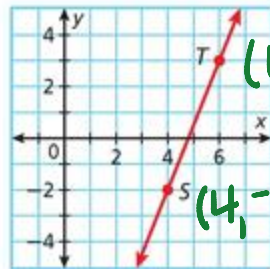
$$m = \frac{-2 - 3}{4 - (-5)} = \frac{-5}{9}$$

4. \overleftrightarrow{AB}



$$m = \frac{1 - 1}{0 - (-5)} = \frac{0}{5} = 0$$

5. \overleftrightarrow{ST}

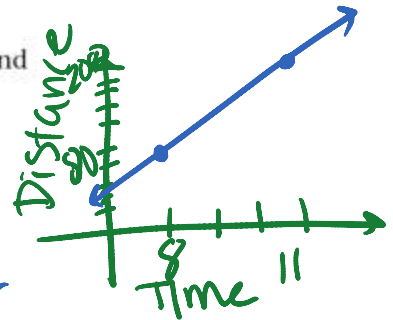


$$m = \frac{3 - (-2)}{6 - 4} = \frac{5}{2}$$

6. **Biology** A migrating bird flying at a constant speed travels 80 miles by 8:00 A.M. and 200 miles by 11:00 A.M. Graph the line that represents the bird's distance traveled. Find and interpret the slope of the line.

$$m = \frac{200 - 80}{11 - 8} = \frac{120}{3} = 40$$

which means the bird is flying at an avg. speed of 40 mi/hr



Graph each pair of lines. Use slopes to determine whether the lines are parallel, perpendicular, or neither.

7. \overleftrightarrow{HJ} and \overleftrightarrow{KM} for $H(3, 2)$, $J(4, 1)$, $K(-2, -4)$, and $M(-1, -5)$

$$\overleftrightarrow{HJ}: \frac{1 - 2}{4 - 3} = \frac{-1}{1} = -1$$

$$\overleftrightarrow{KM}: \frac{-5 - (-4)}{-1 - (-2)} = \frac{-1}{1} = -1$$

parallel

9. \overleftrightarrow{QR} and \overleftrightarrow{ST} for $Q(6, 1)$, $R(-2, 4)$, $S(5, 3)$, and $T(-3, -1)$

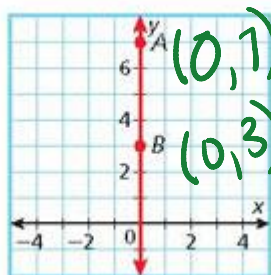
$$\overleftrightarrow{QR}: \frac{4 - 1}{-2 - 6} = \frac{3}{-8}$$

$$\overleftrightarrow{ST}: \frac{-1 - 3}{-3 - 5} = \frac{-4}{-8} = \frac{1}{2}$$

neither

Use the slope formula to determine the slope of each line.

10. \overleftrightarrow{AB}



$$m = \frac{3 - 1}{0 - 0} = \frac{2}{0}$$

undefined

For $F(7, 6)$, $G(-3, 5)$, $H(-2, -3)$, $J(4, -2)$, and $K(6, 1)$, find each slope.

20. \overrightarrow{GJ}

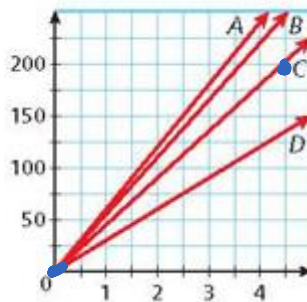
$$\overrightarrow{GJ} = \frac{-2-5}{4-(-3)} = \frac{-7}{7} = -1$$

22. \overrightarrow{GK}

$$\overrightarrow{GK} = \frac{1-5}{6-(-3)} = \frac{-4}{9}$$

28. In the formula $d = rt$, d represents distance, and r represents the rate of change, or slope. Which ray on the graph represents a slope of 45 miles per hour?

- A A C C
 B B D D



(0,0)

(5,200)

$$m = \frac{200-0}{5-0} = \frac{200}{5}$$

$$= 40$$