

3-3 Practice

Slopes of Lines

Determine the slope of the line that contains the given points.

1. $B(-4, 4), R(0, 2)$ 2. $I(-2, -9), P(2, 4)$

Find the slope of each line.

3. \overline{LM} $\frac{2}{3}$

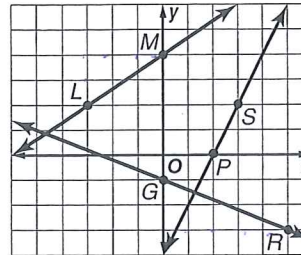
4. \overline{GR} $-\frac{2}{5}$

5. a line parallel to \overline{GR}

$-\frac{2}{5}$

6. a line perpendicular to \overline{PS}

$\frac{2}{5} \perp -\frac{1}{2}$



Determine whether \overline{KM} and \overline{ST} are parallel, perpendicular, or neither.

7. $K(-1, -8), M(1, 6), S(-2, -6), T(2, 10)$ 8. $K(-5, -2), M(5, 4), S(-3, 6), T(3, -4)$

$+2 < \frac{-1}{1} | \frac{-8}{6} > 14$ $7 < \frac{-2}{10} | \frac{-6}{16} > 16$ $\frac{16}{4} = 4$ *Neither*

$+10 < \frac{-5}{5} | \frac{-2}{4} > +6$ $13 < \frac{-3}{3} | \frac{6}{-4} > -10$ $\frac{6}{10} = \frac{3}{5}$ $-\frac{10}{6} = -\frac{5}{3}$ *Perpendicular*

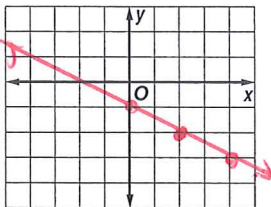
9. $K(-4, 10), M(2, -8), S(1, 2), T(4, -7)$ 10. $K(-3, -7), M(3, -3), S(0, 4), T(6, -5)$

$+6 < \frac{-4}{2} | \frac{10}{-8} > 18$ *Parallel*

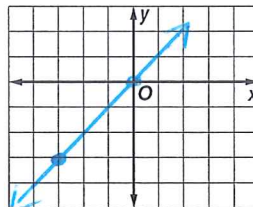
Perpendicular

Graph the line that satisfies each condition.

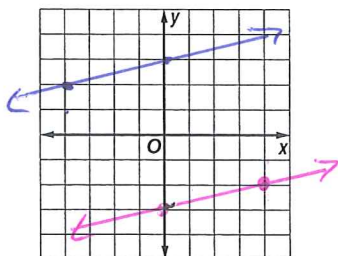
11. slope = $-\frac{1}{2}$, contains $U(2, -2)$



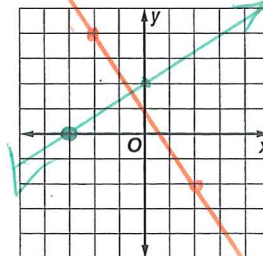
12. slope = $\frac{4}{3}$, contains $P(-3, -3)$



13. contains $B(-4, 2)$, parallel to \overline{FG} with $F(0, -3)$ and $G(4, -2)$



14. contains $Z(-3, 0)$, perpendicular to \overline{EK} with $E(-2, 4)$ and $K(2, -2)$



15. **PROFITS** After Take Two began renting DVDs at their video store, business soared. Between 2000 and 2003, profits increased at an average rate of \$12,000 per year. Total profits in 2003 were \$46,000. If profits continue to increase at the same rate, what will the total profit be in 2009?

118,000