

Calculate the Unknown

Topics: Slope, Finding "k", parallel lines, perpendicular lines, x & y intercepts, collinear points

1. A line has an x-intercept of -4 and a y-intercept of 3. Determine the slope.
2. A line has an x-intercept of 2 and crosses through point (2k,-1). If the slope is perpendicular to -8, find k.
3. A line passes through a point (6, 2k) and has a y-intercept of 4. If the slope is perpendicular to the y-axis, find k.
4. A line has an x-intercept of 6 and a y-intercept of -2. Determine the slope.
5. Calculate the x & y intercepts for each of the following:
  - a)  $y = x - 1 + 3x - 7$
  - b)  $3x - 5 + 7 + 2y = -3x - 1$
  - c)  $3y = 6x - 12 - 3x + 9$
  - d)  $2y - 6 = y + 5x - 8$
6. A line passes through a point (7k, -3) and has a y-intercept of -1. If the slope is parallel to the y-axis, find k.
7. A line passes through point (8, 3) and has a y-intercept of 3. Determine the slope.
8. A line passes through (3k, -4) and has an x-intercept of 4. If the slope is undefined, find k.
9. A line passes through points (4k, 2k) and (-2, 5). If the slope is perpendicular to  $-\frac{3}{4}$ , find k.