

Writing Equations of Lines

Name _____

Slope-Intercept Form:

Useful when: _____

Point-Slope Form:

Useful when: _____

Ex 1: Find the equation of the line through the point (4, 6) with a slope of -3.

Ex 2: Find the equation of the line with a y-intercept of -5 and a slope of 7.

Ex 3: Find the equation of the line through the point (3, 8) parallel to the line $y = 2x - 6$

Ex 4: Find the equation of the line through the point (4, -4) perpendicular to the line $y = -4x + 9$.

Ex 5: Find the equation of the line through the points (1, 3) and (-2, 9).

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Practice: Use Point-Slope or Slope-Intercept Form to write the equations of the lines below.

1. Write the equation of the line with a slope of 0 and a y-intercept of 6.
2. Write the equation of the line with an undefined slope that goes through the point (-8, 10)
3. Write the equation of the line with a slope of $\frac{1}{2}$ that goes through the point (-6, 5)
4. Write the equation of the line that is parallel to $y = -3x + 8$ that goes through the point (-4, 7)
5. Write the equation of the line that is parallel to $y = \frac{2}{3}x - 8$ that goes through the point (6, 9)
6. Write the equation of the line that is perpendicular to $y = 3x + 1$ that goes through the point (12, 4)
7. Write the equation of the line that is perpendicular to $y = -\frac{1}{2}x - 5$ that goes through the point (0, 3)
8. Write the equation of the line that goes through the points (2, 6) and (-4, -6)
9. Write the equation of the line that goes through the points (-4, 3) and (10, 17).