

Show all of your work.

1. Write the equation of the line with slope of -5 that contains the point (2, -6).

2. Write the equation of the line that passes through the points (-3, 6) and (0, 2).

3. Write the equation of the line that has x-intercept at -2.5 and contains the point (4, -5).

4. Write the equation of the line that has an x-intercept at 4 and a y-intercept at -9.

5. Find the equation of the line that passes through (4, -5) and is parallel to the line with equation $5x - 2y = 6$.

6. Write the equation of the line that passes through $(-2, 3)$ and is perpendicular to the line that contains the points $(5, -2)$ and $(-5, 4)$.
7. Find the distance between the points $(5, -2)$ and $(-5, 4)$.
8. Find the midpoint of the line segment with endpoints $(5, -2)$ and $(-5, 4)$.
9. Find the x- and y-intercepts of $y = x^3 - 4x^2 - 9x + 36$.
10. Find the x- and y-intercepts of $y = |3x - 2| - 1$.