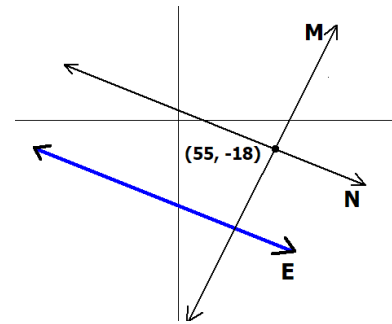


$$A \perp K \quad \text{and} \quad A \parallel J$$

$$A: \text{ Slope } 1.5$$



$$M \perp E \quad \text{and} \quad N \parallel E$$

$$E: \text{ Slope } -0.4$$

Determine the Equations of Lines J, K, M, and N. **(Point-Slope, Slope Intercept, Standard and General)**

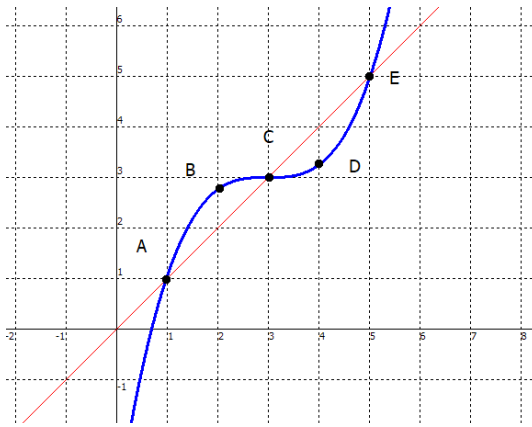
Example: Determine the equation of a line that is parallel to $4x - 3y = -6$ and contains the point $(-12, 42)$.

Put the equation of the given line in slope – intercept form to determine the slope. Next use the same slope, the given point, and the point-slope equation to determine the equation of the parallel line.

Example: Determine the equation of a line that is perpendicular to $5x - y = 8$ and passes through $(10, -7)$.

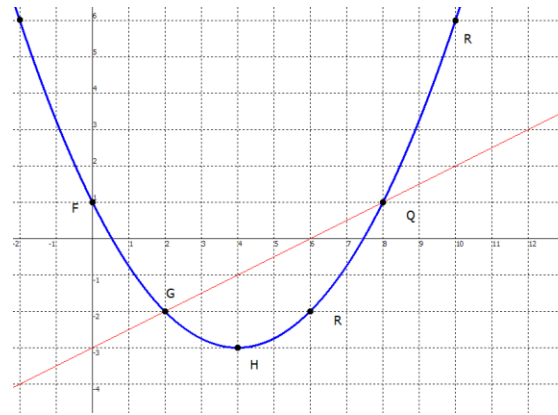
Put the equation of the given line in slope – intercept form to determine the slope. Next use the perpendicular slope, the given point, and the point-slope equation to determine the equation of the perpendicular line.

Average Rate of Change for a Function over an interval is determined by the formula $\frac{f(x_2) - f(x_1)}{x_2 - x_1}$



$$f(x) = \frac{1}{4}(x-3)^3 + 3$$

Determine the Average Rate of Change
Of the function from A to C.



$$f(x) = \frac{1}{4}(x-4)^2 - 3$$

Determine the Average Rate of Change
Of the function from G to Q.