Graphing Equations

An equation of a line is written \( y = mx + b \)

\( y \) and \( x \) are the endogenous variables.
\( m \) and \( b \) are two constants—they could be any numbers.

\( Y \) is the variable on the vertical axis. \( X \) is on the horizontal axis.

\( m \) is the slope \( \frac{\text{rise}}{\text{run}} = \frac{\Delta y}{\Delta x} \). If \( x \) changes by one unit, \( y \) changes by \( m \) units.

\( b \) is the \( y \)-intercept. This is how much \( y \) will be if \( x \) is zero.

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\begin{array}{c}
\text{So if the equation is } P = 200 - 2Q, \text{ the graph looks like }
\end{array}
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