

$$\frac{\mathbf{Dividend}}{\mathbf{Divisor}} = \mathbf{Quotient} + \frac{\mathbf{Remainder}}{\mathbf{Divisor}}$$

$$\mathbf{Dividend} = (\mathbf{Divisor})(\mathbf{Quotient}) + (\mathbf{Remainder})$$

The Remainder Theorem

If the polynomial $P(x)$ is divided by $x - c$, then the remainder is equal to $P(c)$.