

$$\begin{array}{r}
 x^2 - x + 10 \\
 2. b) \quad x \overline{) x^3 - 3x^2 + 12x - 5} \\
 \underline{x^3 - 2x^2} \\
 -x^2 + 12x - 5 \\
 \underline{-x^2 + 2x} \\
 10x - 5 \\
 \underline{10x - 20} \\
 15
 \end{array}$$

$$\text{DIVIDEND} = \text{QUOTIENT} \times \text{DIVISOR} + \text{REMAINDER}$$

$$x^3 - 3x^2 + 12x - 5 = (x-2) * (x^2 - x + 10) + 15$$

$$x^3 - 3x^2 + 12x - 5 = (x^2 - x + 10) + 15$$

$$x - 2$$

$$x - 2$$