

$$7x^6 + 0x^5 + 0x^4 - 3x^3 + 0x^2 + 9x + 1$$

$$\begin{array}{r} -7x^6 + 7x^5 - 7x^3 \\ \hline -7x^5 - 10x^3 \end{array}$$

$$\begin{array}{r} +7x^5 + 7x^4 + 7x^2 \\ \hline 7x^4 - 10x^3 + 7x^2 \end{array}$$

$$\begin{array}{r} -7x^4 + 7x^3 + 7x \\ \hline -17x^3 + 7x^2 + 2x + 1 \end{array}$$

$$\begin{array}{r} +17x^3 + 17x^2 + 17 \\ \hline 24x^2 + 2x + 18 = r(x) \end{array}$$

$$24x^2 + 2x + 18 = r(x)$$

$$\frac{x^3 + x^2 + 0x + 1}{7x^3 - 7x^2 + 7x - 17} = q(x)$$

$$7x^3 - 7x^2 + 7x - 17 = q(x)$$

$$(2x^2 + 7x^5 - 3x^4 + 1 - 6x) : (x^2 + 1 - x)$$

$$\begin{array}{r} 7x^5 - 3x^4 + 2x^2 - 6x + 1 \\ 7x^5 + 7x^4 - 7x^3 - 7x \\ \hline 4x^4 - 7x^3 + 2x^2 - 6x + 1 \end{array}$$

$$\begin{array}{r} -4x^4 + 4x^3 + 4x^2 + 4x \\ \hline -3x^3 - 2x^2 - 6x + 1 \end{array}$$

$$\begin{array}{r} +3x^3 + 3x^2 + 3x \\ \hline -5x^2 - 3x + 1 \end{array}$$

$$\begin{array}{r} +5x^2 + 5x + 5 \\ \hline -8x + 6 = r(x) \end{array}$$

$$-8x + 6 = r(x)$$

$$\frac{x^2 - x + 1}{7x^3 + 4x^2 - 3x - 5}$$

$$7x^3 + 4x^2 - 3x - 5$$