Step 11: Subtract $6x - 6$ from the dividend.

$$
\begin{array}{r|l}
 & x^2 + 3x + 6 \quad \leftarrow \text{quotient} \\
\hline
x - 1 & x^3 + 2x^2 + 3x - 6 \\
 & -x^3 + x^2 \quad \downarrow \\
 & \hline
 & \quad 3x^2 + 3x \\
 & \quad -3x^2 + 3x \quad \downarrow \\
 & \quad \hline
 & \quad\quad 6x - 6 \\
 & \quad -6x + 6 \\
 & \quad \hline
 & \quad\quad 0
\end{array}
$$

Divisor

Remainder

Remainder is 0

$\therefore$ This means the remainder is 0.

Please follow the above steps to respond to the next two questions.

1) Given $f(x) = 2x^3 - 8x^2 + 4$
Determine the remainder if $f(x)$ is divided by $x - 2$

2) Divide $2x^3 - 9x^2 + 15$ by $2x - 5$