

$$\begin{aligned} 2x+2 &= 0 \\ 2x &= -2 \\ x &= -1 \end{aligned}$$

$$\begin{aligned} 2(-1)+2 &= 0 \\ -2+2 &= 0 \\ 0 &= 0 \end{aligned}$$

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

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

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

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

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

$$x^3 + 3x + 2$$

$$- x^3 + x^2$$

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

$$2(2x+1)$$