Factor and solve the following equation. Remember to get the equation equal to zero first and look for a GCF.

$8x^3 + 22x^2 = -5x$
$+5x \quad +5x$

$$8x^3 + 22x^2 + 5x = 0$$

$$x(8x^2 + 22x + 5) = 0$$

$a \cdot c$

40

$20 \quad 2$
$+$
22
b

$$\begin{array}{c|c|c}
 & 2x & 5 \\
\hline
4x & 8x^2 & 20x \\
\hline
1 & 2x & 5 \\
\end{array}$$

$$x(2x+5)(4x+1) = 0$$

$2x = \frac{-5}{2}$

Solve: $\boxed{x = 0}$ $2x + 5 = 0$ $4x + 1 = 0$
$\qquad\qquad\qquad -5 \quad -5$

$$\boxed{x = \frac{-5}{2}}$$ $$\boxed{x = \frac{-1}{4}}$$