

$$6x^2 + 3x = 0$$

Zero Product Property

$$(3x)(2x+1) = 0$$

$$\frac{3x}{3} = \frac{0}{3}$$

$$x = 0$$

$$\begin{array}{r} 2x+1=0 \\ -1 \quad -1 \\ \hline 2x = -1 \\ \frac{2x}{2} = \frac{-1}{2} \\ x = -\frac{1}{2} \end{array}$$

$$\begin{array}{r} 3 \overline{) 6x^2 + 3x} \\ \underline{x(2x^2 + x)} \\ 2x + 1 \end{array}$$

$$\begin{array}{r} 3x^2 + 3x = -6x \\ \quad + 6x \quad \quad + 6x \\ \hline 3x^2 + 9x = 0 \end{array}$$

① Set equal to 0

② Take out GCF

$$\begin{array}{r} 3 \overline{) 3x^2 + 9x} \\ \underline{x(x^2 + 3x)} \\ x + 3 \\ 3x(x+3) \end{array}$$

$$3x(x+3) = 0$$

$$\begin{array}{ll} 3x=0 & x+3=0 \\ x=0 & x=-3 \end{array}$$

③ Set each factor equal to 0