

$$8x^5 + 10x^4 = 4x^3 + 5x^2$$

$$2x^4(4x + 5) = x^2(4x + 5)$$

$$2x^4(4x + 5) - x^2(4x + 5) = 0$$

$$(4x + 5)(2x^4 - x^2) = 0$$

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

$$\begin{cases} 4x + 5 = 0 \\ x^2 = 0 \\ 2x^2 - 1 = 0 \end{cases}$$

$$\begin{cases} x = -\frac{5}{4} \\ x = 0 \\ x = \pm \sqrt{\frac{1}{2}} \end{cases}$$

$$\begin{cases} x = -\frac{5}{4} \\ x = 0 \\ x = \pm \frac{\sqrt{2}}{2} \end{cases}$$

**Answer:**  $-\frac{5}{4}, 0, \pm \frac{\sqrt{2}}{2}$