

Find ALL solutions by factoring:

1.  $6x^5 - 18x^3 - 108x = 0$

2.  $2x^3 - 5x^2 + 18x - 45 = 0$

**Sum and Difference of Cubes**

$$a^3 + b^3 = (a + b)(a^2 - ab + b^2)$$

$$a^3 - b^3 = (a - b)(a^2 + ab + b^2)$$

**Quadratic Formula**

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

3. Factor  $27x^3 - 125$

4. Find ALL Solutions.  $8x^3 + 1 = 0$