

Bell Work Tuesday 11/13

SAT No Calculator

- For what real value of x is the equation below true?

$$x^3 - 5x^2 + 2x - 10 = 0$$

- B) Factor the polynomial completely

$$\begin{array}{l} x^3 - 5x^2 + 2x - 10 \\ \underline{x^2(x-5) + 2(x-5)} \\ (x^2+2) \cdot (x-5) \end{array} \quad \text{Factor by grouping}$$

2 imaginary Sol. $\rightarrow x^2+2=0$
 $\frac{-2 \pm \sqrt{4-8}}{2} \rightarrow x = \pm i\sqrt{2}$

$x-5=0$
 $\boxed{x=5}$ 1 real sol. (1 x-int)