

Algebra II Polynomial Not Quiz

Name _____ Pd _____

Show all your work on this sheet.

I. Factor

1) $3x^3 + 17x^2 + 10x$

2) $x^3 + 5x^2 - 9x - 45$

II. Solve Each Equation

3) $12x^3 - 27x = 0$

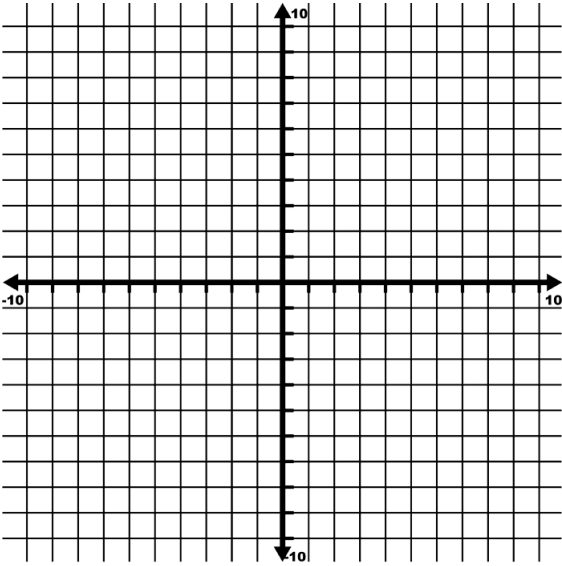
4) $3x^3 - 6x^2 - 9x = 0$

5) $x^3 - 10x^2 + 13x = 0$

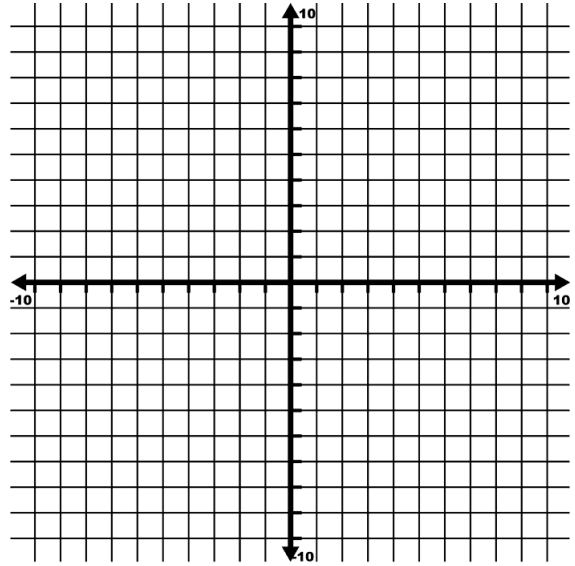
6) $x^2 - 8x = -7$

III. Sketch each graph. Note each x-intercept, y-intercept, and be sure to consider the end behavior.

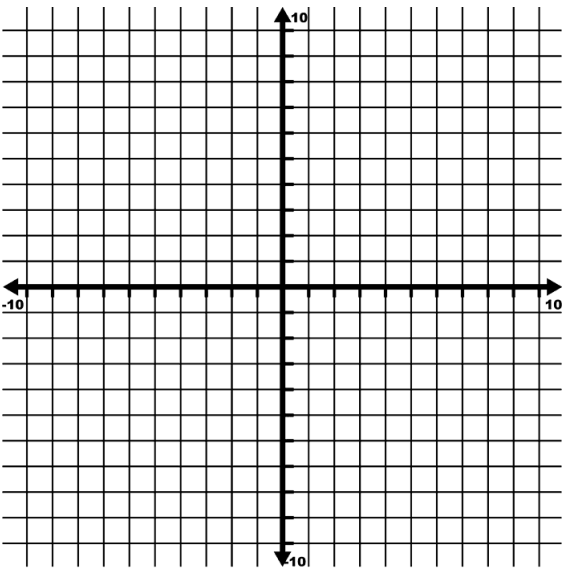
7) $y = (x+1)(x-2)(x-3)$



8) $y = (x-1)(x+1)^2(x-2)$



9) $y = x^3 - x^2 - 12x$



10) $y = x^3 + 2x^2 - 4x - 8$

