

Name _____

Date _____

Advanced Algebra

I can solve various equations

Unit 2: Families of Functions Assignment #2

1) $3x^2 - 8 = 22$

2) $8x^2 - 6x + 4 = 2x^2 + 35$

3) $8x^3 - 12 = 38$

4) $|2x - 5| = 22$

5) $4\sqrt{3x - 6} = 16$

6) $12x^{\frac{1}{3}} = 144$

7) $12\sqrt[4]{x - 18} = 18$

8) $3x^9 + 12 = 38$

9) $12x^4 - 16 = 28$

10) $3(x-4)^3 - 18 = 292$

An important use of your equation skills is to be able to easily find the x intercept. We know that this occurs when $y=0$. Solve the following equations and thus state the x intercept.

Sketch a graph of the function. Your graph should include the general shape and the proper x intercepts

11) $(x-5)^2 - 16 = 0$

12) $4|x - 16| = 0$

13) $3(x-4)^3 - 18 = 0$

14) $9x^3 - 16 = 0$

15) $12x^{\frac{1}{3}} = 0$

16) $x^2 - 16 = 0$