NAME _____ QUARTER _____

GRADE & SECTION _____ DATE _____

Activity: ROOTS OF A POLYNOMIAL EQUATION

Part I. Determine the number of roots and what are the roots of the polynomial.

1. $(x + 4)(x + 3) = 0$

   How many roots are there in this equation? _____

   What are the roots? _____ _____ _____

2. $(x - 4)^3 = 0$

   How many roots are there in this equation? _____

   What are the roots? _____ **of multiplicity** _____

3. $(x - 1)^2(x - 3) = 0$

   How many roots are there in this equation? _____

   What are the roots? _____ **of multiplicity** _____ **, and** _____

4. $x^5(x + 3)(x - 4) = 0$

   How many roots are there in this equation? _____

   What are the roots? _____ **of multiplicity** _____ **,** _____ **and** _____

Part II. Find the other roots.

1. If one of the roots of the polynomial equation $x^2 + 5x - 14 = 0$ is 2, find the other root.

   _____

2. If one of the roots of the polynomial equation $x^3 - 13x + 12 = 0$ is -4, find the other roots.

   _____ **and** _____

3. If one of the roots of the polynomial equation $x^4 - x^3 - 7x^2 + 13x - 6 = 0$ is 1, find the other roots.

   _____ **,** _____ **and** _____

How many attempts? ___.
How well did you do?

_____ Need help!

_____ Just OK!

_____ Splendid

I FEEL THAT...

_____

_____

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LIVEWORKSHEETS