Algebra 2 Honors- Week 13 Homework

**Monday-**

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**Tuesday-**

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Find the rational and irrational roots of each equation.

1. x3 - x2 – 4x + 4 = 0 2. x3 - 4x2 – 3x + 18 = 0 3. x3 – 3x2 + 4x - 12 = 0 4. x3 – x2 - 3x + 3 = 0

5. x4 + x3 – 7x2 - 13x - 6 = 0 6. x4 + x3 + 6x - 36 = 0 7. x4 – 1 = 0 8. x5 - 3x4 - 5x3 + 15x2 + 4x – 12 = 0

**Wednesday-**

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**Thursday-**

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**Friday-**

**Solving Polynomial Equations Assignment**

1. Without distributing, find the constant (last) term of this polynomial equation: (x + 5)(x – 4)(x + 2)2(x – 7)= 0

**List the possible solutions of the following equations. DO NOT SOLVE.**

2. x3 – 6x + 12 = 0 3. 2x3 – 7x2 + 6x + 9 = 0 4. 10x8 + 6x – 6 = 0

**Find the rational and irrational roots of each equation.**

5. 2x3 + 7x2 + 5x + 1 = 0 6. 5x3 + 7x2 - 46x + 24 = 0 7. 2x3 – 17x2 + 22x – 7 = 0

8. 2x4 – x3 – 6x2 - 8x – 5 = 0 9. 2x4 - 9x3 - 21x2 + 16x + 12 = 0

10. 3x5 + 8x4 - 23x3 - 54x2 + 30x + 36 = 0 11. 3x6 – 8x5 - 18x4 + 40x3 + 27x2 - 32x - 12 = 0