Name: _____ Date: _____ Block: _____

Algebra 2 Honors- Week 8 Homework

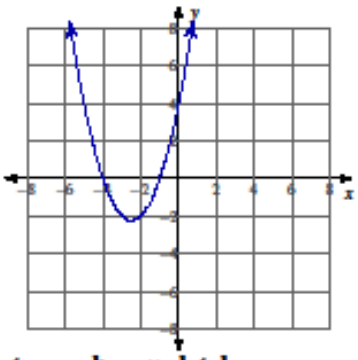
Monday-

Factoring Trinomials Assignment

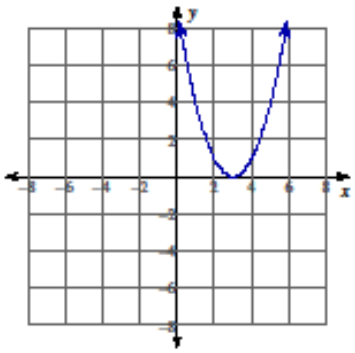
Date_____ Period____

Find the factors of this polynomial graphically.

1)



2)



Factor each completely.

3) $a^2 + 6a - 16$
4) $x^2 - 6x - 16$
5) $x^2 + 6x + 5$
6) $a^2 - 16a + 60$
7) $5m^2 + 8m + 3$
8) $3b^2 - 11b - 70$
9) $5p^2 - 9p - 18$
10) $10x^2 - x - 24$
11) $8x^2 - 41x + 5$
12) $9n^2 - 21n + 10$
13) Compare and contrast each method of factoring trinomials.

Tuesday-

ID: 1

College Algebra Name_____

Diff. of Squares and Sum or Diff. of Cubes

Date_____ Period____

Factor each completely. Write Prime for any non-factorable expression.

1) $4k^2 + 9$
2) $x^2 - 25$
3) $64u^2 + 9v^2$
4) $25x^2 - 36y^2$
5) $49x^4 - 4y^4$
6) $49a^4 - 144b^4$
7) $a^4 - 25b^4$
8) $25x^6 - 16y^6$
9) $x^3 - 64$
10) $27 - a^3$
11) $x^3 - 8$
12) $8 + 27a^3$
13) $216m^6 - 125n^6$
14) $27x^6 - 343y^6$
15) Desribe how you know whether a polynomial is a difference of cubes, or a sum or difference of squares.
16) Why can't we factor a sum of squares?

Wednesday- Quiz! No homework, catch up from previous week if needed!

Thursday-

Factoring Completely Assignment

Name: _____ Date: _____ Block: _____

Factor completely.

1. $b^4 + 4b^2 + 4$
2. $2x^2 - 14x + 24$
3. $4a^6 + 4$
4. $24m^4 + 10m^3 - 4m^2$
5. $4z^4 - 7x^2 - 15$
6. $x^3 - 3x^2 - 4x + 12$
7. $h^4 - 5h^2 - 1$
8. $w^8 - 1$
9. $(y-3)^2 - 4$
10. $(x+5)^2 + 7(x+5) + 6$

Friday-

Modeling Equations and Functions with Factoring Assignment

Solve each problem.

1. $b^2 + 7b + 6 = 0$
2. $x^2 - 16 = 0$
3. $2y^2 - 6 = y$
4. $m^2 = 25$
5. $t^3 - t^2 = 0$
6. $(p-6)^2 = p$
7. $m^3 + 6m^2 = 27m$
8. $d^4 - 2d^2 + 1 = 0$
9. The width of a rectangle is 10 less than its length.
    a) Write a function A(x) that represents the area give length x.
    b) Find the area of the rectangle if it has a length of 15 inches.
    c) Find the length and width if the area is 24 inches^2.
10. A ball is shot straight up from a height of 112 feet and at a rate of 96 feet per second.
    a) Write a function H(t) that represents the height at t seconds.
    b) Find the height of the ball at 2 seconds.
    c) When will the ball hit the ground?