

## Unit 1: Factoring and Graphing Quadratics

**By the end of the unit students will be able to:**

- 1) Factor quadratic binomial, trinomial, and polynomials of 4 terms.
- 2) Solve quadratic equations by factoring.

Day	Date	Lesson	Assignment	Checked
1	Mon. Aug. 28 <sup>th</sup>	Introductions and Expectations Adding/Subtracting Polynomials	Homework 1-1 Diversity Quilt Forms/Surveys	
2	Tues. Aug. 29 <sup>th</sup>	Multiplying Polynomials	Homework 1-2	
3	Wed. Aug. 30 <sup>th</sup>	Factoring: <i>GCF, Grouping, Difference of Squares</i>	Homework 1-3	
4	Thurs. Aug. 31 <sup>st</sup>	Review Factoring Trinomials	Homework 1-4	
5	Fri. Sep. 1 <sup>st</sup>	<b>Review and Quiz</b>	Homework 1-5	
6	Mon. Sep. 4 <sup>th</sup>	Labor Day No School 😊		
7	Tues. Sep. 5 <sup>th</sup>	Solve by Factoring	Homework 1-6	
8	Wed. Sep. 6 <sup>th</sup>	Solve by Factoring	Homework 1-7	
9	Thurs. Sep. 7 <sup>th</sup>	Review for Unit 1 Test	Review for Test	
10	Fri. Sep. 8 <sup>th</sup>	Test	Unit 2 Placemat	

1.  $(6b + 4b^5) + (3b^5 - 5b)$

$7b^5 + b$

2.  $(8n^2 + 7n^4) - (9n^4 - 2n^2)$

$-2n^4 + 10n^2$

3.  $(5p^2 - 3p) + (2p^2 - 3p^3)$

$-3p^3 + 7p^2 - 3p$

4.  $(4 + 2n^3) + (5n^3 + 2)$

$7n^3 + 6$

5.  $(3a^2 + 1) - (4 + 2a^2)$

$a^2 - 3$

6.  $(-4k^4 + 14 + 3k^2) + (-3k^4 - 14k^2 - 8)$

$-7k^4 - 11k^2 + 6$

7.  $(12a^5 - 6a - 10a^3) - (10a - 2a - 14a^4)$

$12a^5 + 14a^4 - 10a^3 - 14a$

8.  $(8b^3 - 6 + 3b^4) - (b^4 - 7b^3 - 3)$

$2b^4 + 15b^3 - 3$

9.  $7(-5v - 8)$

$-35v - 56$

10.  $6v(2v + 3)$

$12v^2 + 18v$

11.  $2x(-2x - 3)$

$-4x^2 - 6x$

12.  $(2n + 2)(6n + 1)$

$12n^2 + 14n + 2$

13.  $(6p + 8)(5p - 8)$

$30p^2 - 8p$

14.  $(7k - 3)(k^2 - 2k + 7)$

15.  $(7r^2 - 6r - 6)(2r - 4)$

16.  $(n^2 + 6n - 4)(2n - 4n + 1)$

**Factor completely:**

1.  $4d^4 - 2d^{10} + 12d^5$

2.  $8x^6 + 2v^5 - 10x^9$

3.  $24a^2b^5 - 48a^3b^7$

4.  $2x^2 + 4xy - 6x - 12y$

5.  $2ah + h + 2ab + b$

6.  $X^2 - 25$

7.  $2a^2 + 4a + 3ab + 6b$

8.  $25d^3 - 100d^2 - d + 4$

9.  $y^3 - 7y^2 + 4y - 28$

10.  $9g^2 - 25$

11.  $X^4 - 16$

12.  $3x^2 - 75$

**Honors Math 2: Factoring HW 1-4**

1. $x^2 - 18x + 80$	2. $5x^2y - x^2 + 5y - 1$	3. $3y^2 - 15y + 18$
4. $a^3 - a^2b + ab^2 - b^3$	5. $x^4 - 15x^3 + 56x^2$	6. $k^2 - 8k + 16$
7. $2z^2 - 12z + 18$	8. $c^4 + c^3 - 12c - 12$	9. $25y^2 - 100$

Factor or Simplify each of the following as needed. Check your work!! 😊

1.  $4x^2 - 81$

2.  $(4b - 2a + 4) - (4b^2 - 5x + 2b)$

3.  $(x + 7)(2x - 3)$

4.  $4b - 2a + 7 - 6b + 2a + 3c - 4(a - 5b + 2)$

5.  $(3x + 7)(3x - 7)$

6.  $-4b^2(-2b^3 + 6b - 2c + 7)$

7.  $3x^4 - 48x^3 + 180x^2$

8.  $3x^2 + 14x + 8$

9.  $4x^2 - 81$

10.  $4x^2y + 2xy - 36x - 18$

*HW 1-6 and 1-7: Solving Quadratic Equations*

**1-6 Assignment: Odd Problems**

Solve each equation by factoring.  
Use your OWN PAPER! 😊

1.  $x^2 - 4x - 12 = 0$

3.  $n^2 + 25 = 10n$

5.  $7x^2 = 4x$

7.  $5w^2 - 35w + 60 = 0$

9.  $15v^2 + 19v + 6 = 0$

11.  $36k^2 = 25$

13.  $6e^3 = 5e^2 + 6e$

**1-7 Assignment: Even Problems**

Solve each equation by factoring.  
Use your OWN PAPER! 😊

2.  $y^2 - 16y + 64 = 0$

4.  $9z = 10z^2$

6.  $c^2 = 2c + 99$

8.  $3d^2 + 24d + 45 = 0$

10.  $4j^2 + 6 = 11j$

12.  $12m^3 - 8m^2 = 15m$

14.  $9 = 64p^2$

