

Algebra II Pre-AP/GT
Unit 5 - Quadratics
November 17 to December 19

Date	Topic	Assignment
Monday 11/17	Graphing Quadratic Equations in standard and intercept form	Find the Vertex, intercepts, axis of symmetry, and graph. Pg. 240 (22-28 even) Pg. 249 (14-20 even) Pg. 312 (7-11 odd, 22, 23)
Tuesday 11/18	Solving Quadratic Inequalities	Pg. 305 46-57 all
Wednesday 11/19	District Assessment	
Thursday 11/20	Graphing and Solving quadratic Inequalities - Writing equations in vertex and intercept form	Pg. 304 20-24, 35, 36, 39, 60-62, 65
Friday 11/21	Graphing Intercept Form and Standard Form	P. 249 (15-21 odd) P. 313 (21-25 odd)
Monday 12/1	Factor Review	Worksheet
Tuesday 12/2	Quadratic Inequalities	P. 305 (35, 36, 39, 47-57 odd, 60, 65, 66)
Wednesday 12/3	Quadratic Word Problems	Worksheet
Thursday 12/4	Quadratic Word Problems	Worksheet
Friday 12/5	Quadratic Word Problems	Worksheet
Monday 12/8	Complete the Square Review	Worksheet
Tuesday 12/9	Review - Test 2.3	
Wednesday 12/10	Test 2.3 - Quadratic Word Problems, Inequalities	
Thursday 12/11	Properties of Exponents - Review	Worksheet
Friday 12/12	Properties of Exponents - Review	
12/15 - 12/19	Semester Review - Final Exams	

Factoring Review – Monday 12/1

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|-------------------------|------------------------|----------------------------|-------------------------------|
| 1) $2x^2 - 5x - 12$ | 2) $3x^2 - 14x + 15$ | 3) $4x^2 - 7x - 2$ | 4) $5x^2 + 17x + 6$ |
| 5) $6x^2 + x - 2$ | 6) $10x^2 - 3x - 1$ | 7) $5x^3 - 30x^2 + 45x$ | 8) $x^4 - 3x^2 - 40$ |
| 9) $6x^3 - 39x^2 - 72x$ | 10) $x^5 - 10x^3 + 9x$ | 11) $x^3 + 1$ | 12) $8x^3 - 125$ |
| 13) $27x^3 + 64y^3$ | 14) $16x^3 - 2$ | 15) $x^3 + 2x^2 - 9x - 18$ | 16) $4x^4 + 2x^3 - 4x^2 - 2x$ |

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Complete the Square Review - Monday 12/8

Solve the following using complete the square.

1. $x^2 + 4x + 5 = 0$ 2. $2x^2 - 6x + 7 = 0$ 3. $x^2 - 8x = 1$ 4. $3x^2 = 2x + 3$
 5. $x^2 + 3x - 4 = 0$ 6. $3x^2 + 5x - 1 = 0$

Write each problem in vertex form:

7. $f(x) = 8x^2 - 16x$ 8. $y = 10x + 3x^2 + 8$ 9. $y = 6(x-4)(x+6)$ 10. $f(x) = -4x^2 + x + 6$

Polynomial Review - Thursday 12/11

1. $\left(\frac{3}{5}a^7b^8c\right)\left(\frac{-5}{9}a^{12}c^3\right)$ 2. $\left(\frac{3m}{4n^7}\right)^3$ 3. $\frac{-12x^3y^5}{-16x^3}$ 4. $(-2x^5y)^3(-3x^5y^7)$
 5. $(-4m^3)^0$ 6. $\left(\frac{-6b^4c}{12b^4c}\right)^0$ 7. $\left(\frac{35m^4}{7m^5}\right)^2$ 8. $\left(\frac{35m^4}{7m^5}\right)^2$
 9. $\left(\frac{3x^8}{x^5}\right)(-2x^7)$ 10. $(6h^3j^2)^2(2hj)^2$ 11. $\left(\frac{18x^5y}{9x^3y}\right)^3(-3x^{-5}y^3)$ 12. $\frac{(-3m^2)^2(5m^6n)}{(3m^6n^2)(3m)}$

13. Find the area of a circle in terms of π if the radius of the circle is $\frac{15x^4y^2}{5x^2y^2}$.

14. What is the area of a rectangle if the length is $-4xy^2$ and the width is $-5x^3y^5$?

15. What is the volume of a cube whose side has a length of $3a^7b^4c$?

16. Find the volume of a cylinder in terms of π if the radius is $\frac{4x^3}{2x}$ and the height is $5x^6$ ($V = \pi r^2 h$).

17. The diameter of a circle is $23a^8b^{13}$. What is the radius of the circle?

Simplify the following in Scientific Notation:

18. $(1.2 \times 10^4)(4 \times 10^7)$ 19. $\frac{8.4 \times 10^3}{1.2 \times 10^6}$ 20. $(12 \times 10^{-5})(6 \times 10^5)$ 21. $\frac{3.5 \times 10^{-8}}{7.0 \times 10^5}$

Worksheet for Friday 12/12

Simplify. (Do not leave negative or zero exponents)

1. $\frac{15x^0}{2-5x^0}$ 2. $\left(\frac{2a^3}{3b^{-5}}\right)^{-3}$ 3. $\frac{5^{-4}}{5^{-2}}$ 4. $\left(\frac{5x^3y^{-4}}{20x^8yz}\right)^2$ 5. $2^{x+5} \cdot 2^{2x-6}$ 6. $6x^0y^8 - (2y^2)^4$
 7. $\frac{4^{3y-5}}{4^{3y-7}}$ 8. $(x^3y^{-3})^{-3}$ 9. $(-2x^{-5})^{-4}$ 10. $(-2x^{-5})^{-3}$ 11. $\frac{x^{-3}}{-4y^{-2}}$ 12. $\left(\frac{2x}{y^{-3}}\right)^{-2}$
 13. $\left(\frac{-4x^{-8}}{y^{-4}}\right)^{-4}$ 14. $\frac{4x^{-5}y^{-3}}{18x^{-7}y}$ 15. $\frac{9^5}{9^3(x^0+2)}$ 16. $\frac{4^{-1}x^2z^{-3}}{2^{-3}x^{-4}z^2}$ 17. $\frac{8}{m^0+n^0}$
 18. $(4x^3)(3x^4)$ 19. $(-2x^2)^3$ 20. $6+4^0$ 21. $\left(-\frac{3}{4}m^2n^3\right)\left(\frac{8}{9}mn^4\right)$ 22. $\frac{5^{2x}}{5^{2x+2}}$