

Name: _____ Date: _____

Unit 1 Review – Non Calculator**Factor completely**

1. $x^2 + 10x + 24$

2. $3x^2 - 15x - 72$

3. $2x^2 + 32$

4. $16x^2 - 81$

Solve each quadratic equation using the indicated method

5. *Quadratic Formula*: $5x^2 = -6x - 1$

6. *Completing The Square*: $x^2 + 4x - 12 = 0$

7. *Factoring*: $3x^2 - 17x - 6 = 0$

8. *Square Roots*: $2(x - 3)^2 + 10 = 24$

Perform the following operation.

9. $(12 + 14i) - (17 + 8i)$

10. $(3 - 2i)(4 + 5i)$

11. $(2 + 5i)^2$

12. $\frac{-5 + 2i}{6 - 3i}$

13. $2x^2 - 4x + 3$

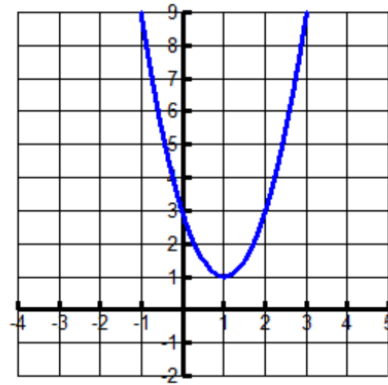
Domain _____ Range _____

Extrema _____ AOS _____

Inc. _____ Dec _____

Y – Int _____ Solutions _____

End Behavior $x \rightarrow$ _____ $f(x) \rightarrow$ _____
 $x \rightarrow$ _____ $f(x) \rightarrow$ _____



14.

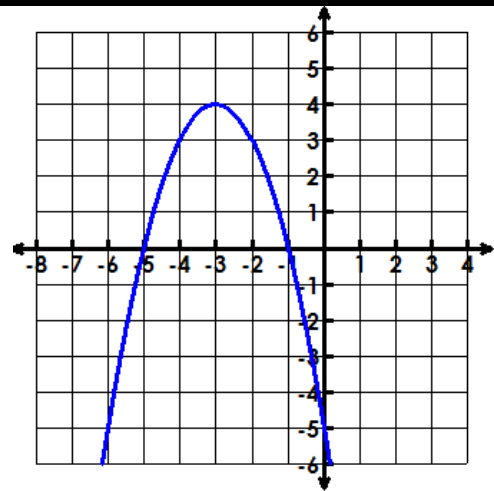
Domain _____ Range _____

Extrema _____ AOS _____

Inc. _____ Dec _____

Y – Int _____ X - ints _____

End Behavior $x \rightarrow$ _____ $f(x) \rightarrow$ _____
 $x \rightarrow$ _____ $f(x) \rightarrow$ _____



15.

	Natural	Whole	Integers	Rational	Irrational	Real	Imaginary	Complex
4/9								
8-3i								
12								

Calculator Portion

Solve each equation using the best method.

16. $2x^2 + 28 = 4$

17. $2x^2 - 3x = 2$

$$18. x^2 + 8x = -4$$

$$19. 5x^2 + 3x + 1 = 0$$

$$20. x^2 - 2x + 10 = 2$$

$$21. \frac{2}{5}x^2 + 63 = 13$$

$$22. -2x^2 + 10x = 15$$

$$23. 2x^2 + 12x = 0$$

24. You drop a ball off a cliff at 320 ft. How long does it take the ball to hit the ground? T is the time in seconds and h is the distance in feet. $h = -16t^2 + 320$

25. A ball is thrown into the air from a height of 256 feet at time $t = 0$. The function that models this situation is $h(t) = -16t^2 + 96t + 256$, where t is measured in seconds and h is the height in feet.

- What is the height of the ball at 2 seconds?
 - When will the ball reach a height of 144 feet?
 - When will the ball hit the ground?
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Need more Review? Extra Practice:

Page 315 #4-19 (skip 17), 24-26, 30-32

Page 318 #2-8, List 9 graphing characteristics for #10, and #14 a-c
