## A1 Unit 6 Part 2 Assessment Retake Review Sheet

In numbers 1-3, simplify the expression.



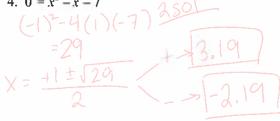
2. 
$$\sqrt{50}$$





In numbers 4-9, find the value of the discriminant and tell if the equation has two solutions, one solution, or no real solution. Then solve using the quadratic formula or factoring.

4. 
$$0 = x^2 - x - 7$$



5. 
$$0 = x^2 - 6x + 8$$
  
 $(-6)^2 - 4(1)(8)$   
 $4$   
 $0 = (x-4)(x-2)$   
 $x = 4, 2$ 

6. 
$$2x^2 - 6x + 3 = 0$$

$$\begin{array}{c} (-6)^2 - 4(2)(3) & 2501 \\ 12 & - 2.360 \end{array}$$

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7. 
$$0 = x^2 + 10x + 15$$

$$10^2 - 4(1)(15)$$

$$100 - 60 = 40$$

$$100 + 360$$

$$8. \ x^2 + 4x + 4 = 0$$

$$4^{2}-4(1)(4) \qquad 1501$$

$$1(6-1)(6-1)(4) \qquad 1001$$

$$\frac{4^{2}-4(1)(4)}{1(0-1)(9-1)} = 0$$

$$\frac{4^{2}-4(1)(4)}{1(0-1)(9-1)} = -\frac{4}{2}(-2)$$

9. 
$$13 = x^2 - 2x$$

$$0 = \chi^{2} - 2\chi - 13$$

$$(-2)^{2} - 4(1)(-13)$$

$$56$$

$$2 \pm \sqrt{56}$$

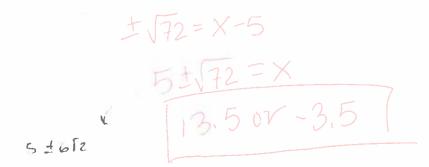
$$+34.$$

10. Identify the roots in the following quadratic equation  $0 = x^2 - 7x - 11$ 

$$\frac{\text{quadratic equation } 0 = x - 1x - 11}{-7)^2 - 4(1)(-11)} \times \frac{7 + \sqrt{93}}{2}$$



11. Identify the solution set to the following equation,  $\sqrt{72} = (x-5)^2$ 



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12. Solve the following quadratic equation using competing the square.  $0 = x^2 - 6x + 4$ 

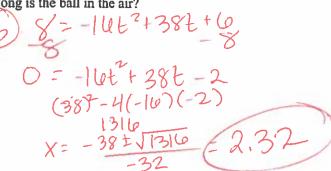
1001  

$$4+49 = X^{2}6x+9$$
  
 $5=\sqrt{(X-3)^{2}}$   
 $\pm\sqrt{5}=X-3$ 

13. Rewrite the following quadratic function in vertex form.  $y = x^2 - 4x + 5$ 

$$y=(x-2)^2+1$$

- 14. Tom Brady throws a football from 6 feet above the ground with an initial velocity of 38 feet per second. (Vertical Motion Model:  $h = -16t^2 + vt + s$ )
  - a. If no one catches the ball, after how many seconds is the ball in the air.
  - b. If a teammate jumps to catch the ball at a height of 8 feet, how long is the ball in the air?
- D=-16t2+38++6  $38^{2}-4(-16)(6)$  1828  $X = -38 \pm \sqrt{1828} = 2.5$



Look for a pattern in each table of values to determine which model best describes the data Then write an equation for the function that models the data.

15.

x	_3 /	-1	1	3	5
у	-5	-2	1/	4	7