Math 2 Unit 2 Test Review Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part I.**

1. **What is the quadratic formula: x = (2 pts)**
2. **Complete the perfect square trinomials: (1 pt)**

**Part II. Solve the following quadratic equations by factoring, quadratic formula, or completing the square. You may choose. (4 pts each)**

 3. 4.

5. 6.

**Part III. Discriminant Multiple Choice (1 pts).**

7. Find the discriminant for . \_\_\_\_\_\_\_\_

8. Which would best describes the roots with this discriminant?

 a) 2 real, rational roots b) 2 real, irrational roots c) 1 real, rational root d) 2 imaginary roots

9. Find the discriminant for . \_\_\_\_\_\_\_\_

10. Which would best describes the roots with this discriminant?

 a) 2 real, rational roots b) 2 real, irrational roots c) 1 real, rational root d) 2 imaginary roots

**Part IV. Number System**

Complete the table below by placing checks in the boxes that correspond to the correct parts of the number system for each number given. (16 points)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Given | Real | Rational | Irrational | Integer | Whole | Natural |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.
 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**Part V. Simplify the following:**

**15.**

16. 

17.  18.  19. 

20. 21. 22.

23.  24.  25. 