**Algebra 2 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**4.3-4.6 Review**

**Solve each equation by factoring.**

|  |  |  |
| --- | --- | --- |
| **1.** | **2.** | **3.** |
| **4.** | **5.** | **6.** |
| **7.** | **8.** | **9.** |
| **10.** | **11.** | **12.** |

**Simplify.**

|  |  |  |
| --- | --- | --- |
| **13.** | **14.** | **15.** |
| **16.** | **17.** | **18.** |
| **19.** | **20.** | **21.** |
| **22.** | **23.** | **24.** |

**Solve each equation by using the Quadratic Formula.** 

|  |  |  |
| --- | --- | --- |
| **25.** | **26.** | **27.** |

**Find the discriminant to describe the number and type of roots.**

|  |  |  |
| --- | --- | --- |
| **28.** | **29.** | **30.** |

**Solve each equation.**

|  |  |  |
| --- | --- | --- |
| **31.** | **32.** | **33.** |

**Solve each equation by using the Square Root Property**

|  |  |  |
| --- | --- | --- |
| **34.** |  | **36.** |

**Solve each equation by completing the square.**

|  |  |  |
| --- | --- | --- |
| **37.** |  | **39.** |

**40. The length of a rectangle is 2 feet more than its width. Find the dimensions of the rectangle if its area is 63 square feet.**

**41. Find two consecutive even positive integers whose product is 624.**

**42. An object is propelled straight up from the ground with an initial velocity of 60 feet per second. At what times will the object be at a height of 56 feet?**

**43. Bryan dropped a ball from a bridge that is 221 feet tall. How many seconds will it take for the ball to hit the water?**

**Key:**

|  |  |  |
| --- | --- | --- |
| **1. {-9, 2}** | **2. {-11, -3}** | **3. {-6, 5}** |
| **4. {0, 1/3}** | **5. {0, -2/3}** | **6. {0, 2/3}** |
| **7. {7/8, -7/8}** | **8. {3/5, -3/5}** | **9. (9/10, -9/10}** |
| **10. {1/2, -3}** | **11. {3/4, -2}** | **12. {-2/3, 5}** |

|  |  |  |
| --- | --- | --- |
| **13.** | **14.** | **15.** |
| **16. 9 – 15i** | **17. 16 + 5i** | **18. 4 + 14i** |
| **19. 24 – 10i** | **20. 11 + 2i** | **21. 23 – 24i** |
| **22.** | **23.** | **24.** |

|  |  |  |
| --- | --- | --- |
| **25. {1/2, -2/3}** | **26.** | **27.** |
| **28. -76; 2 complex** | **29. 97; 2 real. Irrational** | **30. 0; 1 real, rational** |
| **31.** | **32.** | **33.** |
| **34. {5, 3}** | **35.** | **36.** |

|  |  |  |
| --- | --- | --- |
| **37.** | **38.** | **39.** |

**40. 7 ft by 9 ft**

**41. 24 and 26**

**42. 4.5 seconds**

**43. 3.72 seconds**