Name _____ Date _____ Pd _____

**11.1 Quiz Review CYU**

| CONCEPTS | BASIC | INTERMEDIATE | ADVANCED |
|---|---|---|---|
| Solving quadratic equations by factoring | 1 | 2 | |
| Solving quadratic equations by square root method | 3 | 4 | |
| Solving quadratic equations by completing the square | | 5 | 6 |
| Simple Interest | 8 | 9 | 10 |
| Compound Interest | | 7 | 10 |

*Solve the quadratic equation by factoring. Show all work to earn full credit.*

1. $x^2 - 15x + 14 = 0$

2. $7a^2 = 29a + 30$

*Solve the quadratic equation using the square root method. Show all work to earn full credit.*

3. $4m^2 = 196$

4. $(5x - 2)^2 = 2$

*Solve the quadratic equation by completing the square. Show all work to earn full credit.*

5. $n^2 + 3n + 1 = 0$

6. $x^2 + 5x = 0$

*Solve the word problems using simple interest and compound interest formulas. Be sure to show your work to earn full credit. Work includes setting up the formula with accurate numbers for variables and then your answer with proper units.*

7. If P dollars are originally invested, the formula $A = P(1 + r)^2$ gives the amount A in an account paying interest rate r compounded annually after 2 years. Find the interest rate r such that $2500 increases to $2717 in 2 years. Round the results to the nearest hundredth of a percent.

8. A new car, valued at $28,000, depreciates at 9% per year. What is the value of the car one year after purchase?

9. Sara puts $4,000 into an investment yielding 5% annual simple interest; she left the money in for five years. How much interest does Sara get at the end of those five years?

10. You want to invest $20,000 for the next 20 years. You have two options for your investment. People State Bank offers simple interest at a rate of 8%. Royal Bank uses compound interest at a rate of 8% compounded yearly. Which bank should you choose? What is the difference in interest made on your $20,000 investment?

**CYU Reflection:** *How far can you go: basic, intermediate, or advanced?*
**Rate your mastery level!**
How confident are you with the skills this CYU covered? Circle the score you would give yourself.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|
| Basic | | Intermediate | | | Advanced | | Solved ALL! |