Algebra 1

Chapter 2 Review (2.1-2.8)

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Class:\_\_\_\_\_\_\_\_\_\_\_\_

**Show all of your work for full credit.**

1. Translate the following sentence into an equation:

 The quotient of three and a number x minus one is the same as two. 1.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Solve: $y+\left(-15\right)=2$ 2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Solve: $\frac{2y}{5}+4=8$ 3.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Solve: $-\frac{4}{5}x=\frac{1}{4}$ 4.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Solve: -5x = -25 5.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Evaluate: $1+\left|2-x\right| if x=3$ 6.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Translate $5+b^{2}= 1$ into a sentence. 7.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Solve each equation and check your solution.**

8. $x+2=-4x+8$ 8.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. $\frac{6}{5}=\frac{x}{15}$ 9.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. 7x =5(2x-2) 10.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. $\left|t-4\right|=2$ 11.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12.a. $\frac{x-4}{3}=r$ , Solve for x 12.a\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b. P = 2(L + W) , solve for W 12b.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 c. 3x-2y =-6 , solve for x 12c.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. State whether the percent of change is a percent of increase or a percent of decrease. Then find the percent of change.

Original: 12 13. Percent=\_\_\_\_\_\_\_\_\_

New: 17 Increase / Decrease

14. State whether the percent of change is a percent of increase or a percent of decrease. Then find the percent of change.

Original: 22 14. Percent=\_\_\_\_\_\_\_\_\_

New: 17 Increase / Decrease

15. Determine whether each pair of ratios are equivalent ratios. MUST Show your work for credit.

$$\frac{12}{21},\frac{4}{7}$$

16. Determine whether each pair of ratios are equivalent ratios. MUST Show your work for credit.

$$\frac{4.2}{6.3},\frac{0.3}{0.5}$$

17. Cancel like terms, reduce the fraction and write the final answer for the unit.

$$\frac{15inches}{5seconds}x\frac{60 seconds}{1 minute}x\frac{1 foot}{12 inches}x\frac{1yard}{3 feet}$$

18. Use unit analysis to convert:

a. 3 years into 🡪 \_\_\_\_\_\_\_ minutes

b. 2/3 meter per second into 🡪 \_\_\_\_\_\_\_\_\_\_centimeter per hour

c. 10 inches per second into 🡪 \_\_\_\_\_\_\_\_\_\_feet per minutes