

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Class: \_\_\_\_\_

Algebra  
Unit 6  
HW 6-4

1) Gabe is buying a pair of jeans at the store that are \$45. There is an 8% sales tax that he must pay. If he has a \$50 gift card will it cover the cost?

2) If the population of deer is currently 560 and is expected to decline by 5% in the next year, how many deer will be left? What % of the deer will remain?

3) Evaluate:  $36\%$  of 96

4) Prestel currently makes \$8.50 per hour. His boss has promised him a 15% raise in his hourly earnings. What would his new hourly salary be?

5) Imani's rent increased from \$560 per month to \$600 per month. Her friend, Ariana, had her rent increase from \$825 to 875. Who had the larger percent increase in their rent?

- 6) Niko had his savings increase by 5% this year. He started with \$350 in his account and calculated how much he had at the end of the year by using the following sets of calculations:

7) If  $f(x) = \left(\frac{8x^{-2}}{4}\right)^4$  Find  $f(-3)$  and  $f(4)$ .

8) Simplify (no negative exponents):  $\frac{10x^4y^6z}{2x^2y^{10}z^5}$