

ALGEBRA 1 – September 11, 2008

Name: _____

- a) $y + 12$ when $y = 29$
- b) $47 - x$ when $x = 38$
- c) $0.8a$ when $a = 75$
- d) $12.5 + m$ when $m = 7.6$
- e) $r(4.6)$ when $r = 8.1$
- f) $6.25 \div g$ when $g = 2.5$
- g) $\frac{x}{0.9}$ when $x = 54$
- h) $\frac{62}{d}$ when $d = 3.1$
- i) $\frac{4}{7} \cdot t$ when $t = \frac{7}{8}$
- j) $r(8.3)$ when $r = 10.2$
- k) $w + \frac{2}{5}$ when $w = \frac{1}{2}$
- l) $\frac{n}{2.4}$ when $n = 12$

Write the power in words and as a product.

m) 8^7

n) $(0.1)^4$

o) x^5

Evaluate the power

p) 9^2

q) 17^6

r) $(0.4)^3$

s) x^2 when $x = \frac{1}{5}$

t) m^4 when $m = 0.6$

u) $2y^3$ when $y = 4$

Word Problems

1. **Side Table:** A side table has interior storage space in the shape of a cube. What is the interior storage space if the interior (inside) length is 12 inches?

2. **Playing Cards:** There are 52 cards in a standard deck of playing cards. You are combining decks of cards so that you can play a game with a large number of people. The expression $52d$ represents the number of cards in d decks. If you combine 4 decks of cards, how many cards will you have altogether?

3. **Sales Tax:** An item costs c dollars and 6% sales is charged. The total cost including sales tax is given by the expression $1.06c$. You are buying an item that costs \$75. What is the cost of the item including the sales tax?

4. **Flower Arranging:** You are creating a floral arrangement for a friend. The total cost i (in dollars) for one vase and f flowers is given by the expression $8 + 2.5f$. How much will it cost to make an arrangement with 8 flowers?