Algebra I Name_____

Mental Math Post-test 2 Date: _____

Directions: Do your best. Attempt to find each answer in your head. No calculators allowed.

1) Simplify $(x^{54})^{(1/6)}$ _____

2) Simplify $\frac{4}{5} \cdot 45$. _____

3) p = sale price of the item ($)
   $S(p)$ = sales tax on the item ($)
   $S(p) = .06p$
   Find the sales tax on an item costing $800. _____

4) Solve: 0.3x = 2.7 _____

5) You buy 8 gallons of bottled water. Each gallon costs $1.20. What is the total cost? _____

6) ⊿ABC is a right triangle. m∠ACB = 71°. Find m∠CAB. _____

7) If the cost per thousand dollars of life insurance is $5.20, find the cost of a $20,000 policy. _____

8) If 203 out of 812 students are taking Calculus, what percent are taking Calculus? _____

9) Find 40% of $55. _____

10) Simplify $200\sqrt{23} - 192\sqrt{23}$ _____

11) Simplify $(w^{42})^5$ _____

12) Find 75% of 4,400. _____

13) If 4 pounds cost $20, how much will 7 pounds cost? _____

14) In a video game, Jackie has 800 lbs. of iron. 30% of the iron has been used. How much iron has she used? _____

15) $f(x) = 2(x-4)^2 + 6$. Find $f(9)$ _____