Algebra I Name_____

Mental Math Pre-test 2 Date: _____

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

1) Simplify $(y^{42})^{(1/6)}$ _____

2) Simplify $\frac{3}{5} \cdot 35$. _____

3) x = sale price of the item ($)
   $T(x)$ = sales tax on the item ($)
   $T(x) = .06x$
   Find the sales tax on an item costing $90. _____

4) Solve: 0.2a = 2.6 _____

5) You buy 7 pieces of candy. Each piece costs $0.12. What is the total cost? _____

6) ⊿ABC is a right triangle. m∠CAB = 28°. Find m∠ACB. _____

7) If the cost per thousand dollars of life insurance is $5.30, find the cost of a $20,000 policy. _____

8) If 201 out of 804 students are taking Sociology, what percent are taking Sociology? _____

9) Find 30% of $44. _____

10) Simplify $300\sqrt{19} - 193\sqrt{19}$ _____

11) Simplify $(k^{26})^5$ _____

12) Find 75% of 480. _____

13) If 5 gallons cost $15, how much will 7 gallons cost? _____

14) In a video game, Janice has 600 pieces of coal. She has used 40%. How much coal has she used? _____

15) $f(x) = 2(x-3)^2 - 6$. Find $f(7)$ _____