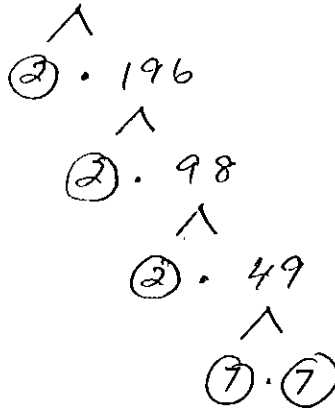**Foundations for College Algebra**
University of North Georgia
Fall 2015
Quiz 6

Name: *Key*   Date: *September 16, 2015*

1. Determine what "Tool" is being used: $(61 + 53) + 29 = 61 + (53 + 29)$

   Associative

2. Find the Prime Factorization of 392 using a "factor tree".

   ②・196
      ②・98
         ②・49
            ⑦・⑦

   $$392 = 2^3 \cdot 7^2$$

3. Use the Order of Operations to simplify: $\dfrac{40-(3*7-9)}{8*2-2}$

   $$\frac{40-(21-9)}{16-2} \qquad \frac{28}{14}$$

   $$\frac{40-12}{14} \qquad \boxed{2}$$

4. The Yurok Tribe has the option to purchase 47, 000 acres in order to increase ancestral territory. The first phase would include 22,500 acres in the Cappel and Pecman watersheds. The second phase plans for acreage in the Blue Creek area. How many acres could be purchased in the second phase?

$$47,000 - 22,500 = 24,500 \text{ acres}$$

check

$$24,500 + 22,500 = 47,000$$

$$47,000 = 47,000 \checkmark$$

5. Solve for x:

$$\frac{8}{1} \cdot \frac{x}{8} = 5 \cdot \frac{8}{1}$$

$$x = 40$$

check

$$\frac{40}{8} = 5$$

$$5 = 5$$

6. Sketch the line number depicting 9 − 4.