7. [3 pts] Give the names of all terms involved in the number sentence $20 \div 2 = 10$. Spell correctly, and clearly identify which term goes with which number(s).

   - $20$ is the dividend.
   - $2$ is the divisor.
   - $10$ is the quotient.

8. [2 pts] Use the constructivist definition to complete the following statement:

   $3 \times 4 = 12 \text{ because...}$

   $3 + 3 + 3 + 3 = 12$

9. [4 pts - 2 each] Make up a word problem clearly requiring each computation and model.

   (a) grouping/repeated subtraction for $36 \div 4$

   I put $36$ cookies into bags of $4$ each. How many bags did I make?

   (b) missing addend for $15 - 8$

   I want to swim $15$ laps and the already done $8$. How many more must I swim?

10. [4 pts] Identify the computation that cannot be performed, then thoroughly explain why not:

    $\begin{array}{c}
    0 \times 0 \neq 12.
    \\
    12 \div 0 \neq 12
    \\
    0 \div 12
    \end{array}$

11. (a) [4 pts] Clearly explain what it means for a set to be closed under subtraction.

    Whenever you perform subtraction using two numbers from the set, the difference is also in the set.

12. [6 pts] Clearly explain what it means to say that an operation is associative; give a supporting example also.

    You can always regroup the numbers you're combining and yet keep the same answer.

12. [6 pts - 2 each] Identify which property or concept is being demonstrated in each number sentence below. Spell correctly.

   (a) $5 \cdot (8 \cdot 2 + 4 \cdot 7) = 5 \cdot 8 \cdot 2 + 5 \cdot 4 \cdot 7$

     **Distributive**

   (b) $5 \cdot (8 \cdot 2 + 4 \cdot 7) = 5 \cdot (4 \cdot 7 + 8 \cdot 2)$

     **Commutative**

   (c) $(5 \cdot 8) \cdot 2 + 5 \cdot (4 \cdot 7) = (5 \cdot 8) \cdot 2 + (5 \cdot 4) \cdot 7$

     **Associative**