Math 200 - Quiz 7

March 7, 2012

Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (1 point) Write a word problem involving the subtraction fact $6 - 4 = 2$ in which the subtraction is best described using the comparison model.

THERE ARE 6 CHAIRS IN THE FIRST ROW AND 4 CHAIRS IN THE SECOND ROW. HOW MANY MORE CHAIRS ARE IN THE FIRST ROW?

2. (1 point) Use the abstract version of the set model to model the addition fact $2+3 = 5$.

$A = \{a, b\}$ $n(A) = 2$

$B = \{x, y, z\}$ $n(B) = 3$

$A \cup B = \{a, b, x, y, z\}$ $n(A \cup B) = 5$

$n(A) + n(B) = 2 + 3 = 5 = n(A \cup B)$

3. (1 point) Is the set $\{0, 1, 2\}$ closed under the operation of addition? Explain.

No, $1 + 2 = 3$ AND 3 IS NOT AN ELEMENT OF THE SET.

4. (1 point) Give an example to show that subtraction is not associative.

$8 - (5 - 3) = 8 - 2 = 6$

NOT EQUAL TO $(8 - 5) - 3 = 3 - 3 = 0$

5. (1 point) Use a partial sums algorithm to compute $598 + 376$.

$$\begin{array}{r} 598 \\ +\ 376 \\ \hline 14 \\ 160 \\ +\ 800 \\ \hline 974 \end{array}$$