River Kelly
Chapter 6&7
CSCI 305

1 -

      String a = new String("Hunter");
      String b = new String("Hunter");

2 -

3 - Assuming 16 bit signed integers, if three numbers are being added, and if the associativity causes an overflow exception, the add operator is not associative.

For example,

(-32768 + 32767) + 1 = (-1) + 1 = 0.
-32768 + (32767 + 1) = -32767 + <error overflow> = <error overflow>

4 -
    a. $(((a * (b-1)^{1})^{2} / c)^{3} \textbf{ mod } d)^{4}$
    b. $((-a)^{1} \textbf{ or } ((c=d)^{2} \textbf{ and } e)^{3})^{4}$
    c. $(-(a+b)^{1})^{2}$

5.

A -> B | C
B -> B = C | B /= C | B < C | B <= C | B > C | B >= C | C
C -> -D | D
D -> D + E | E - E | D and E | D mod E | E
E -> E * F | E / F | (not) !E | | F
F -> G | (C)
G -> a | b | c | d | e