**Short Answers**

P1. (11pts, 1pt each) Q12 on page 149

**12.** True\_or\_False?

**a.** F

**b.** T

**c** T

**d** F

**e.** F

**f.** F

**g.** T

**h.** T

**i.**  T

**j.**  T

**k.** F

P2. (5pts) Q43 on page 157

**43.**

Array based stacks are set, but easier to access since you can use the corresponding element to get info, where a linked based stack will have more difficulty accessing the memory in the stack.

P3. (4pts) Q50 on page 159

**50.** Evaluate\_the\_following\_postfix\_expressions.

**a.** 5 7 8 \* + = (7 \* 8) + 5 = 56 + 5 = 61

**b.** 5 7 8 + \* = (7 + 8) \* 5 = 15 \* 5 = 75

**c.** 5 7 + 8 \* = (5+7) \* 8 = 13 \* 8 = 104

**d.** 1 2 + 3 4 + 5 6 \*2 \* \* + = 1 + 2 = 3 7 5 6 \* 2 \* \* + = 3 7 30 2 \* \* + = 3 7 60 \* + = 3 420 + = 423

P4. (4pts, 2pts each) Q4 – a, b on page 203 (You don’t need to answer part c.)

int puzzle(int base, int limit)

{

if (base > limit)

return -1;

else

if (base == limit)

return 1;

else

return base \* puzzle(base + 1, limit);

}

**4.** Identify

**a.**  it is the input of the user or int base = base and int limit = limit

**b.** -1, 1 and limit!-base!

P5. (6pts, 2pts each) Q5 on page 203

**5.** Show what would be written by the following calls to the recursive method puzzle.

**a.** System.out.println(puzzle(14, 10));

-1

**b.** System.out.println(puzzle (4, 7));

4 \* 5 \* 6 \* 1 = 120

**c.** System.out.println(puzzle(0, 0));

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