**Quick Review (4.1 – 4) Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1.) Give the **EXPLICIT** formula for an arithmetic sequence where a14 = 10 and a18  = 66. Then find a237.

2.) Find S47 for the sequence below. 3.) Evaluate . Box your final answer.

{13, 21, 29, 37, 45,…}

4.) Write the sequence in recursive and explicit notation.

a) {16, -8, 4, -2, 1, . . . } b) {135, 90, 60, 40, . . . }

Recursive: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Recursive: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Explicit: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Explicit: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5.) Write the series in sigma notation. 6.) Write the series in sigma notation.

2 + 10 + 50 + 250+ . . . + 31250 1 + 9 + 17 + 25 + 33 + . . . + 513

7.) Write the **EXPLICIT** formula for the geometric sequence such that a6 = 30.375 and a11 = 230.66.

8.) What term number is 1128 in the arithmetic sequence 8, 12, 16, … , 1128, …?

9.) An investment of $1200 increases by 6.3% every year. Write an explicit formula that describes the value of the investment each year where a1 represents the initial value. How much is the investment worth after 8 years?

10.) Evaluate the sums.

a) $\sum\_{n=1}^{17}6n-2$ b) $\sum\_{n=0}^{5}n^{3}-n^{2}$

c) $\sum\_{k=1}^{3}\frac{5}{k+3}$ d) $\sum\_{n=8}^{72}54+12n$