Chapter 14 Test Name: _____
Math 152 Date: _____

Show all your work to receive credit and box or circle your final answers.

1) Find the specified term in each expansion.

a) $(x-y)^5$ fourth term

b) $(4x+3y)^4$ third term

2) Find the 12^{th} term of an arithmetic sequence whose first three terms are 2,7, and 12.

3) Find the sum of the first 20 terms of the arithmetic sequence 11,18,25,…..

4) Evaluate $\sum_{k=1}^{4}(3k-4)$

5) Find the tenth term of the geometric sequence whose first terms are $-\frac{1}{4},-\frac{1}{2},-1$.

6) Find the sum of the first six terms of the geometric sequence 2, -6, 18, …..

7) Find the sum of all of the terms of the infinite geometric sequence 25,20,16,…….

8) Evaluate $\frac{P(6,2)}{P(5,4)}$

9) In how many ways can we pick 3 persons from a group of 8 persons?

10) An ordinary die is rolled once. Find the probability of rolling a number larger than 1 but less than 6.