

Math 12 Combinatorics Quiz 1-42

1) A student has five shirts, three pairs of pants, and two pairs of shoes. How many outfits does he have?

2) A true or false test has six questions. If a person guesses the answers, how many different ways are there to answer the test?

3) How many odd four digit numbers are there?

4)a) Determine $11!/8!$ b) Determine $(n + k)!/(n + k - 1)!$

5)a) How many different words can be made using all of the letters in the word TABLE?

b) How many three letter words can be made?

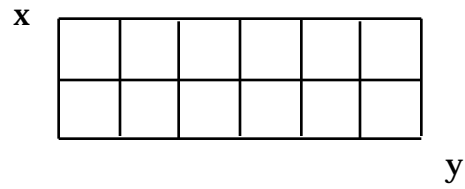
6)a) Determine ${}_9P_3$

b) Given that ${}_nP_r = 12 \times 11 \times 10 \times 9 \times 8$, Find n and r .

7) If you have eight different books, how many ways can four of these books be arranged on a shelf?

8) Find the number of "words" that can be made using the letters of the word TORONTO.

9) Find the number of paths from x to y moving only right (R) or down (D).



Answers: 1) 30, 2) 64, 3) 4500, 4)a) 990, b) $(n + k)$, 5)a) 120, b) 60, 6)a) 504, b) $n = 12$, $r = 5$, visit www.mrowen.com, 7) 1680, 8) 420, 9) 28.