

GRADE 12 APPLIED
COMBINATIONS

Name: _____
Date: _____

ANIMAL CRACKS

1. What do you call a grizzly with no teeth?

6 88,270 120 126 125,970 125,970 1365 9 404,550 462 6 10

2. Why is a moth the animal with the smallest appetite?

1225 91 752,920 462 6 91 21 84 9880 792 2,598,960 462 21

3. What do you call a fly with no wings?

6 360 59,280 6 2,598,960 56

Each time an answer appears in the code, write the letter of the exercise above it.

Find the value of the expression.

R. ${}_5C_3$

T. ${}_{14}C_2$

U. ${}_9C_4$

O. ${}_{12}C_5$

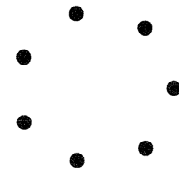
Try these 4 questions ↑ without a calculator! Show your work!!

Solve.

K. How many different committees of three members can be formed from a group of eight people?

Y. Suppose you are required to read any four books from a list of fifteen. How many different selections are possible?

S. The dots at the right represent seven towns that are to be joined by telephone cables. If each town is connected directly to each of the other towns, how many cables will be required? (HINT: You are joining seven points, two at a time.)



I. If there were 50 towns, how many cables would be required?

W. Sure Lock Co. makes locks with 40 numbers printed on the dial. A lock is opened by dialing three different numbers in a certain order. How many different sequences are possible?

H. Suppose that Sure Lock Co. changes its lock so that the order in which you dial the three different numbers doesn't matter. How many different combinations would be possible then?

G. Pizza Mind offers ten different toppings for its pizza. Suppose you order a pizza with three toppings. How many different combinations are possible?

B. Two students at Sky High School will be chosen for a TV interview. If there are 900 students at the school, how many different selections are possible?

E. How many different 6-player starting squads can be formed from a volleyball team of 11 players?

A. You are required to solve any five of the six problems on an algebra quiz. How many different selections are possible?

M. Twenty people report for jury duty. How many different 12-person juries can be chosen?

L. How many different 5-card hands can be dealt from a standard deck of 52 cards?