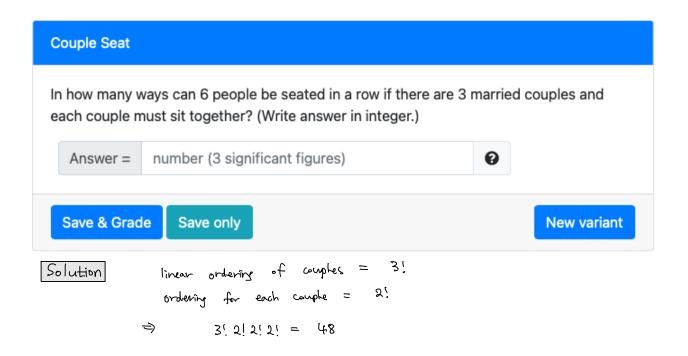


Solution



## Friends and Party

A person has 11 friends, of whom 4 will be invited to a party.

How many choices are there if 2 of the friends are feuding and will not attend together?

Write only integer answer.

Answer= number (3 significant figures)

Save & Grade

Save only

**New variant** 

Solution

Total # of ways = (1)

2 of the friends =  $1 \cdot \binom{9}{2}$ Are invited

# of Choose

ways the rect

to invite 2 out of 9.

the two

## Friends and Party

A person has 7 friends, of whom 5 will be invited to a party.

How many choices are there if 2 of the friends will only attend together?

Write only integer answer.

Answer= number (3 significant figures)

Save & Grade

Save only

**New variant** 

Solution The two both invited =  $1 \cdot {5 \choose 3}$ The two both not invited =  ${5 \choose 5}$  ${5 \choose 3} + {5 \choose 5} = 11$ .



To fulfill the requirements for a certain degree, a student can choose to take any 7 out of a list of 21 courses, with the constraint that at least 1 of the 7 courses must be a Mathemetics course.

Suppose that 7 of the 21 courses are Mathemetics courses.

How many choices are there for which 7 courses to take?

Answer = number (3 significant figures)

Save & Grade

Save only

**New variant** 

Solution

Total # of ways = 
$$\begin{pmatrix} 21\\7 \end{pmatrix}$$
  
not choose Math =  $\begin{pmatrix} 14\\7 \end{pmatrix}$