be 3, hence the maximum form of 2.

where no such 9r. ce with 9, 2

\[ a = q, 2, a_2 = q_2, a_3 = q_3, \ldots \]

\[ a_1 = q_1, 2, a_2 = q_2, \ldots \]

such that \( k \geq 2n, k \geq 1 \)

\[ \text{Set: } a(n) = a_1, a_2, a_3, \ldots a_n \]

an integer that divides any \( 11k \),

\[ 3 \text{ by definition in terms of (H)} \]

...
\[ x = 3 \]

By Peano’s principle and \( \text{P} \),

since \( x \) is a positive integer and \( x \geq 2 \),

there are \( n \) odd numbers from \( 1 \) to \( x-2 \)

such as \( n \), where \( n \geq 3 \).

Therefore, \( \text{P} \) is valid.
How many numbers must be selected from the set \( \{1, 2, 3, 4, 5, 6\} \) to generate a sum of at least 7? 

\[ \binom{6}{\geq 7} \] 

\[ (1, 5), (2, 5), (2, 6) \]
Permutations.

\[ 1, 2 \rightarrow (1, 2), (2, 1) \]
\[ (1, 2, 3) \rightarrow (1, 2, 3), (1, 3, 2), (2, 1, 3), (2, 3, 1), (3, 1, 2), (3, 2, 1) \]

In abstract \( n \) objects \( \rightarrow \) \# of permutations is \( n! \).

\[ \text{ORDER MATTERS} \]

Ex: \( \{a, b, c\} \rightarrow \) Give

? How many permutations of 2 objects:
\( (a, b), (a, c), (b, a), (b, c), (c, a), (c, b) \)

Ex: \( \{a, b, c, d\} \)
What many ways can you seed \( i, j, c \) out of 100 people in order to compete?

\[
\binom{m-1}{n} = \frac{(m-1)!}{n!(m-n-1)!}
\]

How many permutations are there out of 65,536? Choose 15 in 5521.

\[ \binom{5521}{15} \]
\[ \frac{(n-3)!}{n!} = \frac{1}{n(n-1)} \]

Three groups can be created from a sample of 3 students. How many different committees of 3 can be chosen?
\[
\frac{1}{10} = 1.11111... \\
\text{So, } n = 10, \quad r = 5
\]
At least 1 man and 1 woman.

\[
\text{women at 1st} = \left( \frac{5}{9} \right) \times 9
\]

\[
\text{one more}
\]

\[
\text{all women} \quad \left( \frac{5}{9} \right)
\]

\[
\text{all women} \quad \left( \frac{5}{9} \right)
\]

At the committee:

(a) 5 men and 1 woman

\[ n \geq 7 \]
\[
\text{Am: (1/6) - (5/6) - (1/6)}
\]