

Counting Principle Practice

- 1) How many five letter “words” can you make using the alphabet? (No repetition allowed.)
- 2) Write the expression in factorial or power form.
- 3) How many five letter “words” can you make using the alphabet? (Repetition allowed.)
- 4) Write the expression in factorial or power form.
- 5) How many two letter “words” can you make using the vowels? (No repetition allowed.)
- 6) Write the expression in factorial or power form.
- 7) How many two letter “words” can you make using the vowels? (Repetition allowed.)
- 8) Write the expression in factorial or power form.
- 9) How many seven letter “words” can you make using the consonants? (No repetition allowed.)
- 10) Write the expression in factorial or power form.
- 11) How many seven letter “words” can you make using the consonants? (Repetition allowed.)
- 12) Write the expression in factorial or power form.
- 13) How many lock combinations can you get with a 4-number lock using digits 0 - 9. (No repetition allowed.)
- 14) Write the expression in factorial or power form.

- 15) How many lock combinations can you get with a 4-number lock using digits 0 - 9. (Repetition allowed.)
- 16) Write the expression in factorial or power form.
- 17) How many 8 digit passwords can I make using the letters A - M? (No repetition allowed.)
- 18) Write the expression in factorial or power form.
- 19) How many 8 digit passwords can I make using the letters A - M? (Repetition allowed.)
- 20) Write the expression in factorial or power form.
- 21) There are twelve players on a team. How many starting teams of 5 players can you make?
- 22) Ten people run a race. How many ways can they finish 1st, 2nd, and 3rd?
- 23) There are thirty songs on a playlist. The playlist is played in random mode. How many different arrangements are there for the first five songs if the songs cannot repeat?
- 24) There are thirty songs on a playlist. The playlist is played in random mode. How many different arrangements are there for the first five songs if the songs can repeat?
- 25) A club of 26 people are electing a president, vice-president, secretary, and treasurer. How many different arrangements can there be to elect these officials if all members are eligible to serve?
- 26) A club of 26 people are electing a president, vice-president, secretary, and treasurer. How many different arrangements can there be to elect these officials if all members are eligible to serve if members can serve in multiple elected positions?