

DIVISION OF GEN. TRIAS CITY **Project ISuLAT – ACTIVITY SHEETS in MATHEMATICS 8** (Intensified Support to Learning Alternatives Through Activity Sheets)

Grade 8 - Week 7

Name:	Gr. & Sec.:
Name of Teacher:	Score:

MASTER ME

Most Essential Competency (MELC): Counts the number of occurrences of an outcome in an experiment: (table); (tree diagram); (systematic listing); and (fundamental counting principle).

At the end of this activity, you will be able to:

- a. illustrate outcome of an event;
- b. count the number of occurrences of an outcome in an experiment; and
- c. apply the concept of probability in real life situations.

Remember this:

Counting the number of occurrences of an outcome in an experiment can be arranged in four different methods: (1) table; (2) tree diagram; (3) systematic listing; (4) fundamental counting principle.

Example: Ayra went to Robinson Department store in Tejero, General Trias City, Cavite. She decided to buy 3 pants and 2 blouses. In how many ways can she dress up?

Solution:

Let: A and B represent blouses

1, 2, and 3 represent pants

1. Using a Table

Plausas	PANTS				
BIOUSES	1	2	3		
А	A1	A2	A3		
В	B1	B2	B3		

Using a Tree Diagram 2.



3. Using Systematic Listing (A1, B1, A2, B2, A3, B3)

By counting the number of outcomes, there are 6 possible ways Ayra can dress up.



4. Using Fundamental Counting Principle

To find the total number of outcomes using this method, simply multiply the outcomes for each event Hence, 2 blouses x 3 pants = 6 Ways Ayra can dress up.

Therefore, there are 6 different ways Ayra can dress up.

ACT ON

Consider the experiment of tossing a coin and rolling a die.

- 1. What are the possible outcomes if you toss a coin once?
- 2. How many possible outcomes are there in number 1?
- 3. What are the possible outcomes when a die is rolled once?
- 4. What are the possible outcomes if a coin and a die are thrown together?
- 5. How many possible outcomes are there in all if a coin and a die are thrown together?

TRY MORE

There are 4 different coins in this piggy bank (25cents, 1-peso coin, 5-peso coin, and 10-peso coin) and six colors on the spinner (Red, Green, Yellow, Blue, Orange, and Gray), If you pick one coin and spin the spinner simultaneously, how many possible outcomes would you have?



Use the following methods to find the total number of possible outcomes.

A. Table

	COINS				
COLORS	25 cents	1-peso coin	5-peso coin	10-peso coin	
Red (R)					
Green (G)					
Yellow (Y)					
Blue (B)					
Orange (O)					
Gray (Gy)					

Total number of possible outcomes = _____



B. Systematic Listing

= _____ possible outcomes

C. Tree Diagram

D. Fundamental Counting Principles

_____ X _____ = _____ possible outcomes

HARNESS SKILL

A. The Coffee House along Arnaldo Highway in the City of Gen. Trias, Cavite offers a combo sandwich for only P100.00. With combo sandwich meal you get 1 drinks and 1 side dish. Below are the given choices.:

Sides: chips, fries, slaw or fruits.

Drinks: Coffee or soda

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Use tree diagram to find the number of possible different combos



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B. Kyle has to take one course of Physics, one of Science and one of Mathematics. He may choose one of 3 Physics courses (P1, P2, P3), one of 2 Science courses (S1, S2) and one of 2 Mathematics courses (M1, M2). In how many possible ways can he select the 3 courses? (Use fundamental counting principle)

C. You are holding a die. Your seatmate is also holding another die. If both of you roll the dice at the same time, how many outcomes are possible? (Use a table.)

Total No. of Possible outcomes are _____

- **D.** In an experiment, how many possible outcomes are there if 3 coins are flipped at the same time? Use the systematic listing method to find the possible outcomes.
- S = {

} = _____ possible outcomes.

References

- 1. Localized and Contextualized Teaching Guides."
- Department of Education-Division of Cavite: Unpublished, 2017.
- "Grade 8 Mathematics Learner' Modules ."Department of Education Division of Cavite, 2015.