

Combination & Arrangements Notes/Practice (pp. 2 of 2)

Practice.

Make a list or draw a diagram to find the total number of outcomes.

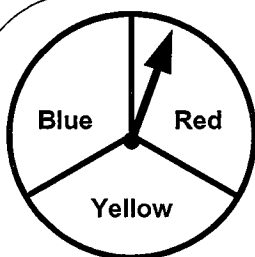
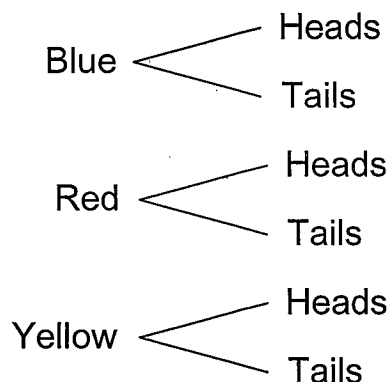
(1) How many 3-digit numbers can be made from the digits in 461?	(2) How many types of sandwiches can be made with ham, turkey, or tuna and wheat, white, or rye bread?
(3) Nathan selects 2 DVDs from a stack of 6 DVDs. How many ways can he select the 2 DVDs?	(4) How many ways can Sara wear her red, green, or white sweater on 3 different days wearing each sweater only 1 time?
(5) Millie selected 2 pictures out of the 4 pictures to hang on the wall. How many ways can she hang the pictures on the wall?	(6) How many different ways can you arrange the letters in the word CAT?

Sample Space Display 1

Organized List

Blue, Heads
Blue, Tails
Red, Heads
Red, Tails
Yellow, Heads
Yellow, Tails

Tree Diagram



Sample Space: The set of all possible outcomes

Example: Find all the possible outcomes of spinning the spinner and tossing a coin



Table

Blue	Red	Yellow
Heads	Heads	Heads
Tails	Tails	Tails

Multiplication

Number of Coin Outcomes		Number of Spinner Outcomes		Total Possible Outcomes
↓		↓		↓
2	x	3	=	6