Math Quiz – Seventh Grade

Name: _____ Date:_____

What ratio can you use to determine the probability of a compound event?
Drag words to complete the ratio. Each word may be used only once.

favorable possible

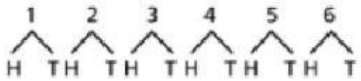
$$P(\text{compound event}) = \frac{\text{Number of } \square \text{ outcomes}}{\text{Total number of } \square \text{ outcomes}}$$

The table shows all the possible outcomes for spinning the pointer of a spinner with four equal-sized sections labeled 1–4 and another spinner with four equal-sized sections labeled A–D. What is the probability that the two pointers will land on an odd number and the letter C? Give the probability as a percent. Enter your answer in the box.

	A	B	C	D
1	1, A	1, B	1, C	1, D
2	2, A	2, B	2, C	2, D
3	3, A	3, B	3, C	3, D
4	4, A	4, B	4, C	4, D

P(odd number, C) = ☐ %

The tree diagram shows the sample space of rolling a cube with faces numbered 1–6 and flipping a fair coin.
What is the probability of rolling the number 5 and the coin landing heads up?



- A. $P(5, H) = \frac{1}{4}$
- B. $P(5, H) = \frac{1}{6}$
- C. $P(5, H) = \frac{1}{12}$
- D. $P(5, H) = \frac{1}{18}$

The organized list below shows all possible outcomes when four fair coins are flipped.
Each coin lands facing either heads up (H) or tails up (T).

HHHH HHHT HTHH HHTT HHTH HTHT HTTH HTTT

TTTT TTTH THTT TTHH TTHT THTH THHT THHH

What is the probability that at least three coins land facing tails up? Give the probability as a percent.
Enter your answer in the box.

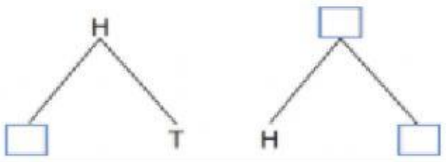
P(at least three tails) = ☐ %

Jeremy is randomly selecting an outfit to celebrate Probability Day at his school.
He can choose from a green (G) or purple (P) shirt, denim (D) or khaki (K) pants, argyle (A) or crew (C) socks, and boots (B), flip-flops (F) or sneakers (S). What is the probability that Jeremy will select an outfit that includes flip-flops (F) and argyle (A) socks?

- A. $P(\text{flip-flops, argyle socks}) = \frac{1}{9}$
- B. $P(\text{flip-flops, argyle socks}) = \frac{1}{4}$
- C. $P(\text{flip-flops, argyle socks}) = \frac{2}{24}$
- D. $P(\text{flip-flops, argyle socks}) = \frac{4}{24}$

A fair coin is flipped twice. Drag letters to complete the tree diagram to represent the sample space.

H T



Students will randomly select a tile from a bag containing one red, one yellow, one blue, and one green tile, and then roll a cube with faces numbered 1 through 6. Drag tiles to complete the table. Each tile may be used only once.

Y-3 | Y-1 | G-1 | B-2 | R-4 | G-4

	1	2	3	4	5	6
Red	R-1	R-2	R-3		R-5	R-6
Yellow		Y-2		Y-4	Y-5	Y-6
Blue	B-1		B-3	B-4	B-5	B-6
Green		G-2	G-3		G-5	G-6

How many possible lunches can be made consisting of one entrée, one drink, and one snack? Enter your answer in the box.

Entrée	Chicken Cutlet	Veggie Wrap	Lasagna
Drink	Milk	Water	Iced Tea
Snack	Fruit	Chips	Jello