

## CA Grade 6 Standard 6.SDAP.3.1

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### MULTIPLE CHOICE

1. The table shows the assortment of shirts and ties Craig has in his closet.

Shirts	Ties
blue	blue
white	red
	green

Which of the following shows the sample space of shirts and ties?

- A. blue shirt and blue tie, white shirt and blue tie
- B. blue shirt and blue tie, blue shirt and red tie, blue shirt and green tie, white shirt and blue tie, white shirt and red tie, white shirt and green tie
- C. white shirt and blue tie, white shirt and red tie, white shirt and green tie
- D. blue shirt and red tie, white shirt and red tie, blue shirt and green tie, white shirt and red tie
2. Michelle has a choice of when to take certain classes. She can choose from three science class during 1st, 2nd, or 3rd period, two math class during 2nd or 4th period, and two language arts class during 1st or 3rd period. What is the theoretical probability that Michelle will have science 1st period, math 2nd period, and language arts 3rd period?
- A.  $\frac{1}{6}$
- B.  $\frac{1}{7}$
- C.  $\frac{1}{12}$
- D.  $\frac{1}{14}$
3. Special license plates are being made and given to grade school students learning about traffic safety. The license plates have 2 letters (A, B, C, D, or E) and 3 numbers (1, 2, or 3). How many possible license plates are made?
- A. 8
- B. 12
- C. 16
- D. 48

4. Which of the following grids shows all possible sums formed by a pair of number cubes?

A.

	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3	4	5	6	7	8
3	4	5	6	7	8	9
4	5	6	7	8	9	10
5	6	7	8	9	10	11
6	7	8	9	10	11	12

C.

	1	2	3	4	5	6
1	1	2	3	4	5	6
2	2	3	4	5	6	7
3	3	4	5	6	7	8
4	4	5	6	7	8	9
5	5	6	7	8	9	10
6	6	7	8	9	10	11

B.

	1	2	3	4	5	6
1	1	2	3	4	5	6
2	2	4	6	8	10	12
3	3	6	9	12	15	18
4	4	8	12	16	20	24
5	5	10	15	20	25	30
6	6	12	18	24	30	36

D.

	0	1	2	3	4	5	6
0	0	1	2	3	4	5	6
1	1	2	3	4	5	6	7
2	2	3	4	5	6	7	8
3	3	4	5	6	7	8	9
4	4	5	6	7	8	9	10
5	5	6	7	8	9	10	11
6	6	7	8	9	10	11	12

5. The following grid shows the possible outcome when two coins are tossed. What is the probability that when two coins are tossed, both land on tails?

	H	T
H	HH	HT
T	HT	TT

A. 0

B.  $\frac{1}{4}$

C.  $\frac{1}{2}$

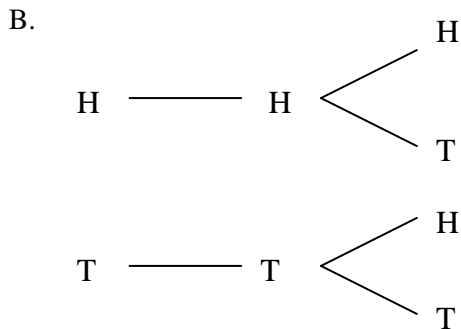
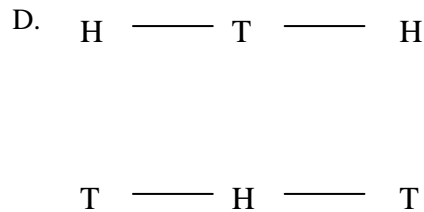
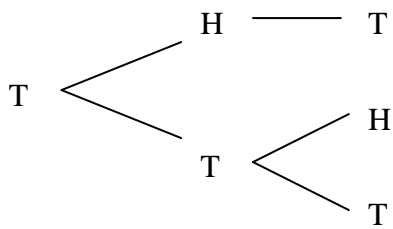
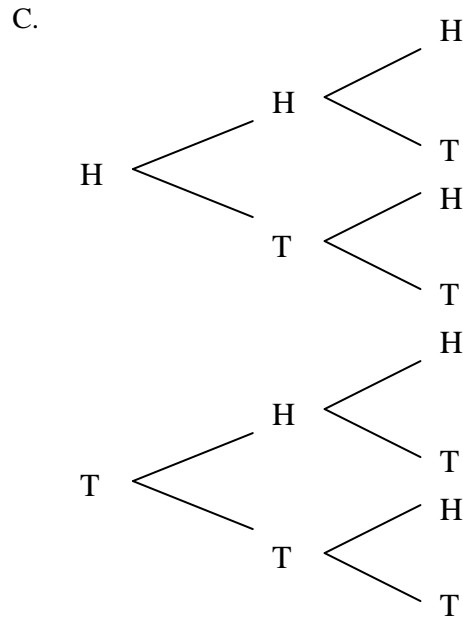
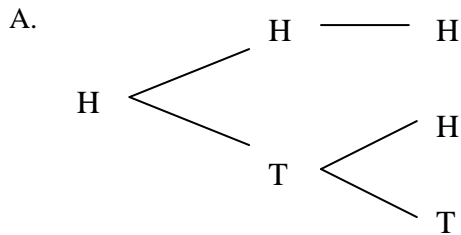
D.  $\frac{3}{4}$

6. There are 3 boys and 4 girls in a gym class. One boy and one girl are chosen to be on a relay-race team. How many possible teams can be formed?

Boys	Girls
Michael	Julia
Joseph	Michelle
Chu	Lacy
	Heather

- A. 4  
 B. 7  
 C. 8  
 D. 12

7. A coin was flipped 3 times. Which of the following tree diagrams shows the possible outcomes?



8. Freddy wants to order the combo meal at a restaurant. He has a choice of one meat, two sides, one drink, one dessert, and one salad. The choices are shown in the table below.

Meats	Sides	Drinks	Dessert	Salad
hamburger	fries	cola	pie	Caesar
steak	corn	milk	shake	house
roast	potatoes	juice	fruit	
	slaw		cake	

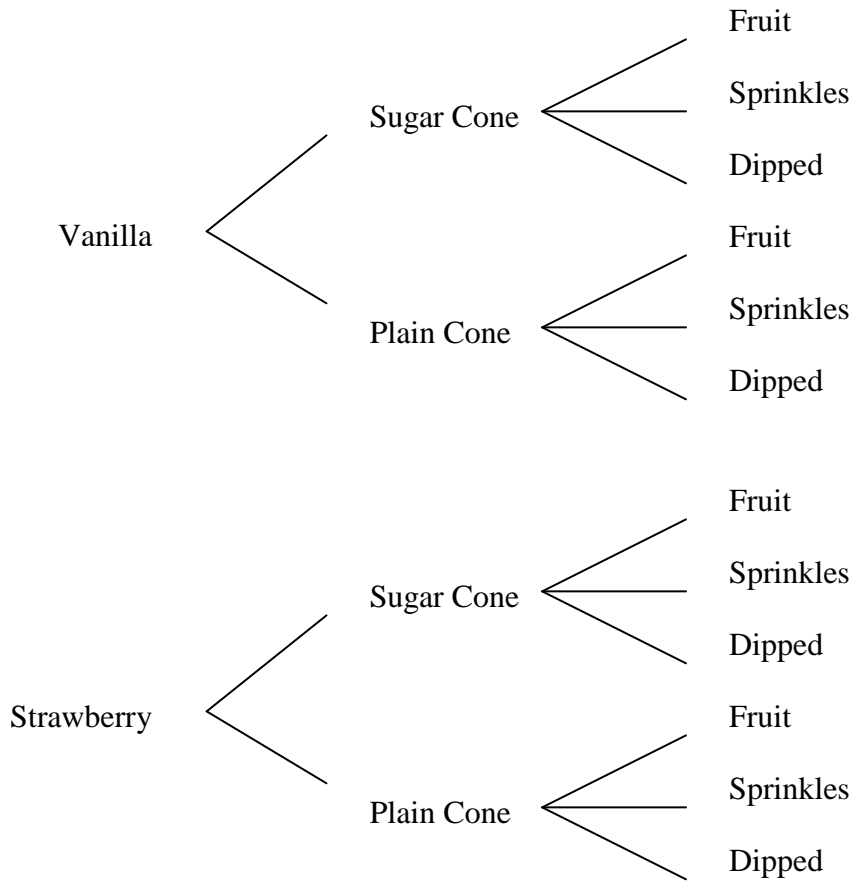
Which of the following sets of foods is *not* considered a combo meal on Monday?

- A. steak, slaw, fries, Caesar, juice, fruit  
 B. roast, corn, potatoes, cola, cake, Caesar  
 C. hamburger, fries, corn, slaw, milk, shake, house  
 D. hamburger, corn, slaw, milk, shake, house
9. Two students each flipped one coin twice. The possible outcomes are shown below. What is the theoretical probability that they toss one head and three tails?

	HH	HT	TH	TT
HH	HHHH	HTHH	THHH	TTHH
HT	HHHT	HTHT	THHT	TTHT
TH	HHTH	HTTH	THTH	TTTH
TT	HHTT	HTTT	THTT	TTTT

- A.  $\frac{1}{8}$   
 B.  $\frac{1}{4}$   
 C.  $\frac{1}{2}$   
 D.  $\frac{7}{8}$

10. The choices Felipe has for an ice cream cone are shown in a tree diagram below.



If he picks at random, what is the theoretical probability that Felipe will choose vanilla ice cream with a sugar cone and sprinkles?

- A.  $\frac{1}{12}$
- B.  $\frac{1}{6}$

- C.  $\frac{1}{4}$
- D.  $\frac{1}{2}$