

## GRADE 6 MATHEMATICS

**(6.9) Probability and statistics.** The student uses experimental and theoretical probability to make predictions. The student is expected to:  
 (A) construct sample spaces using lists and tree diagrams.

NAME \_\_\_\_\_

DATE \_\_\_\_\_

SCORE \_\_\_/5

### 6.9A Mini Assessment

1. If a nickel and a dime are tossed, which table shows all the possible combinations of the toss?

A

Nickel	Dime
H	H
H	T
T	T
T	H

B

Nickel	Dime
H	T
H	T
T	H
T	H

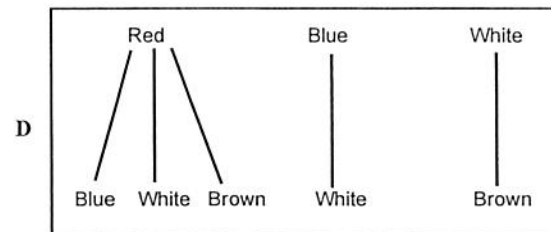
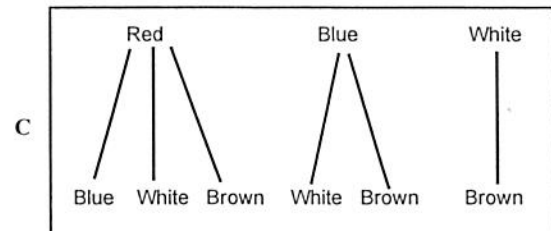
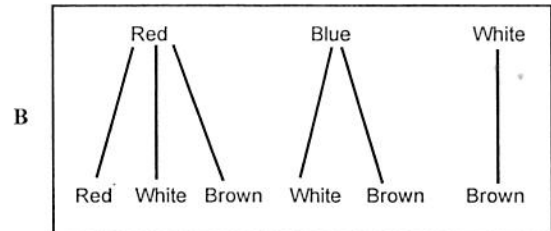
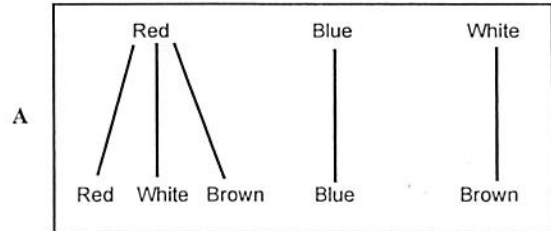
C

Nickel	Dime
H	T
H	T
T	H

D

Nickel	Dime
H	T
T	H

2. David had 1 red, 1 brown, 1 blue and 1 white balloon in a bag. He chose 2 balloons at random from the bag. Which diagram shows all the possible color combinations of the 2 balloons David picked?



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**(A) construct sample spaces using lists and tree diagrams.**

3. A two-color counter is tossed two times. -



Which shows all possible outcomes for the two tosses?

**All Possible Outcomes**

A

First Toss	Second Toss
Red	Yellow
Red	Red
Yellow	Yellow
Yellow	Red

**All Possible Outcomes**

B

First Toss	Second Toss
Red	Yellow
Red	Red
Yellow	Yellow

**All Possible Outcomes**

C

First Toss	Second Toss
Red	Yellow
Red	Red
Yellow	Yellow
Red	Red

**All Possible Outcomes**

D

First Toss	Second Toss
Red	Yellow
Yellow	Red

4. Melissa is arranging three vases on her mantle. The vases are red, orange and yellow. Which list shows all the possible ways of arranging the vases on her mantle?

A

First Position	Second Position	Third Position
Red	Yellow	Orange
Red	Orange	Yellow
Yellow	Red	Orange
Yellow	Orange	Red
Orange	Red	Yellow
Orange	Yellow	Red

B

First Position	Second Position	Third Position
Red	Yellow	Orange
Red	Red	Yellow
Yellow	Red	Orange
Yellow	Orange	Red
Orange	Orange	Yellow
Orange	Yellow	Red

C

First Position	Second Position	Third Position
Red	Yellow	Orange
Yellow	Red	Orange
Orange	Red	Yellow

D

First Position	Second Position	Third Position
Red	Yellow	Orange
Red	Orange	Yellow
Yellow	Red	Orange
Orange	Red	Yellow
Orange	Yellow	Red