



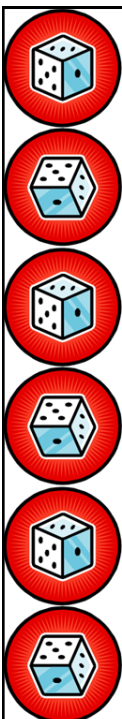
Probability

GRADE 4

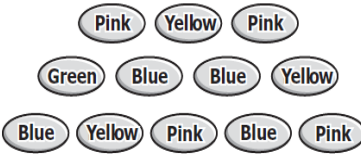
Including Released Test Items

Grade 4 & selected items from 5

Virginia Standards of Learning



The picture shows all the candy that will be placed in a machine. Each time the handle on the machine is pulled, 1 candy comes out.



Alexa will pull the handle on the machine. Which color of candy is *least likely* to come out?

- A Green
- B Yellow
- C Pink
- D Blue

2008~grade 4

 A box contains 11 number tiles that are the same shape and size as shown.

17	10	12
25	33	15
28	36	41
40	27	

F	$\frac{1}{11}$
G	$\frac{1}{4}$
H	$\frac{4}{11}$
J	$\frac{4}{7}$

If Jason picks one tile from the box without looking, what is the probability that the number on the tile will end with 0 or 5 ?

2008~grade 4

 **37** The table shows the number of coupons a store mailed and the value of each.

Value of Coupon	Number Mailed Out
\$25	4,950
\$50	40
\$100	10

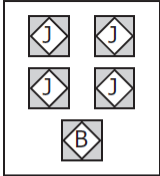
Mr. James will receive one of the coupons. Which *best* describes the chance that it will be a \$100 coupon?

A Certain
B Likely, but not certain
C Unlikely, but not impossible
D Impossible

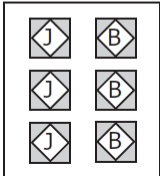
2008~grade 4

39 Keisha will pick one tile from a box without looking. From which of the following boxes is she *certain* to pick a tile with a "J" on it?

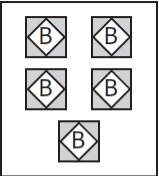
A



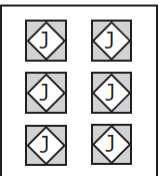
B



C



D



2008~grade 4

The table below shows the cubes Alex found in a box in the math closet.

Cubes in a Box

Color	Number of Cubes
Red	5
Blue	7

What is the probability the first cube Alex takes from the box without looking will be a blue cube?

F $\frac{5}{12}$ **H** $\frac{5}{7}$

G $\frac{7}{12}$ **J** $\frac{7}{5}$

2008~grade 4

The table shows the number of each color of marble Rodney has in a box.

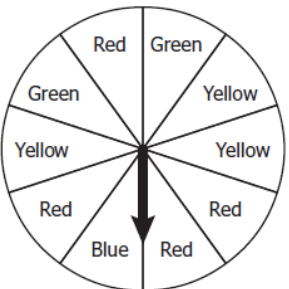
Which question about the marbles can Rodney use knowledge about probability to solve?

Color of Marble	Number
Red	14
Yellow	8
Blue	11

F What is the total number of marbles in the box?
 G What is the chance of taking a yellow marble from the box on the first draw?
 H How many red marbles are in the box?
 J How many more blue marbles than red marbles are in the box?

2008~grade 5

 Trent used the spinner shown to play a board game. Each section of the spinner is the same size.

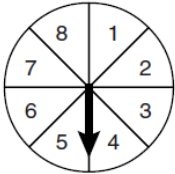


What is the probability the arrow will land on a section labeled green on Trent's first spin?

F 0.1 H 0.3
 G 0.2 J 0.4

2008~grade 5

34 Brent is using the spinner shown below to play a game. Each section of the spinner is the same size.



What is the probability the arrow will land on a section labeled 4 or 5 on Brent's next spin?

F $\frac{1}{8}$ **H** $\frac{1}{6}$

G $\frac{2}{8}$ **J** $\frac{2}{6}$

2007~grade 5

Mrs. Garrison has these sheets of wrapping paper.



Which of the following questions about these sheets of wrapping paper could you use probability to solve?

A How many different kinds of wrapping paper does Mrs. Garrison have?

B How many sheets of wrapping paper does Mrs. Garrison have?

C If Mrs. Garrison uses 1 sheet of wrapping paper, how many will be left?

D If Mrs. Garrison picks 1 sheet of wrapping paper without looking, what kind will it most likely be?

2007~grade 5



Matt has two coins to flip. Each coin has an equal chance of landing on heads or tails. Which question about the coins requires knowledge of probability?

- A** What will Matt buy with the two coins?
- B** What is the total value of the two coins Matt flipped?
- C** What year is stamped on each coin?
- D** What is the chance both coins will land on heads after one flip?

2007~grade 5

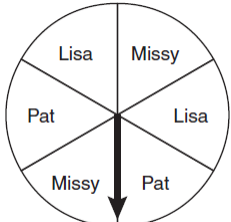


Yolanda has 10 red tomatoes and 2 green tomatoes in a bag. All the tomatoes are the same size. If Yolanda takes 1 tomato from the bag without looking, which *best* describes the chance it will be a green tomato?

- A** Certain
- B** Likely, but not certain
- C** Unlikely, but not impossible
- D** Impossible

2007~grade 4

Pat and her friends will use the following spinner in a game. Each section of the spinner is the same size.



If Pat spins first, what is the probability the arrow will land on a section labeled Missy?

F	$\frac{1}{6}$	H	$\frac{2}{4}$
G	$\frac{2}{6}$	J	$\frac{4}{6}$

2007~grade 4

Terrell put 25 marbles in a bag. It is certain that the first marble taken from the bag will be red. Which is the number of red marbles in the bag?

F	0
G	5
H	20
J	25

2007~grade 4

Jason rolls a cube that has a different one of the following shapes on each face.

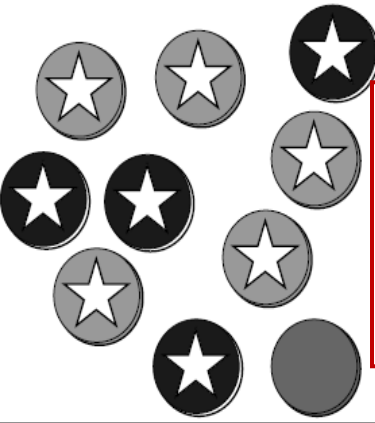


What is the probability the cube will land on a face with a star on Jason's first roll?

A $\frac{1}{6}$ C $\frac{5}{6}$
 B $\frac{1}{5}$ D $\frac{6}{1}$

2007~grade 4

33 Irene has a group of counters like the ones pictured below. In the group are 9 counters with a star on them and 1 counter without a star.



If one counter is chosen from the group without looking, which of the following best describes the chances that it will be the one *without* a star?

A Certain
 B Likely, but not certain
 C Unlikely, but not impossible
 D Impossible

2005~grade 5



Manuel has 9 milk chocolate candy bars and 1 dark chocolate candy bar in a bag. All the candy bars are the same size and shape.



What is the probability that the first candy bar taken from the bag without looking will be milk chocolate?

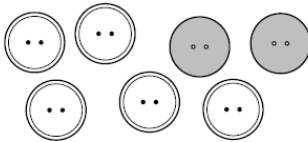
F $\frac{9}{1}$ H $\frac{1}{9}$

G $\frac{9}{10}$ J $\frac{1}{10}$

2005~grade 5



Andrew has these buttons to use for a design.



Which of the following questions about these buttons could you use probability to solve?

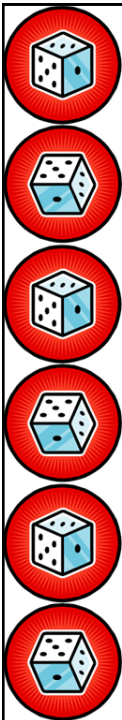
A How many more white buttons than gray buttons does Andrew have?

B How many buttons does Andrew have in all?

C If Andrew gives 2 buttons to Cissy, how many will be left?

D If Andrew picks 1 button without looking, what color is it most likely to be?

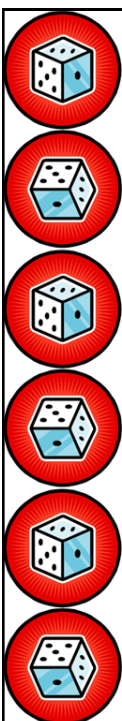
2005~grade 5



Nancy has 2 quarters, 5 dimes, 1 nickel and 6 pennies in her pocket. Which of the following questions about the coins could you use probability to solve?

- F What is the total value of these coins?
- G How many more pennies than nickels does Nancy have?
- H If Nancy takes 1 coin from her pocket without looking, what kind of coin is it most likely to be?
- J If Nancy finds 1 more dime, how many coins will she have then?

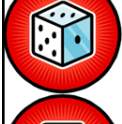
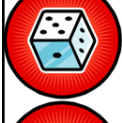
2004~grade 5



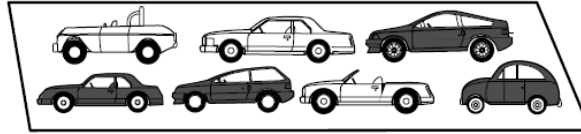
Mrs. Hunter has a box with 5 unsharpened pencils and 30 sharpened pencils. If she takes out 1 pencil without looking, what are the chances that the pencil she gets will be sharpened?

- A Certain
- B Likely but not certain
- C Unlikely but not impossible
- D Impossible

2004~grade 5



Gil has these model cars on a shelf.



If he takes 1 car off the shelf without looking, what is the probability that it will be white?

F $\frac{1}{3}$

H $\frac{1}{7}$

G $\frac{3}{4}$

J $\frac{3}{7}$

2004~grade 5