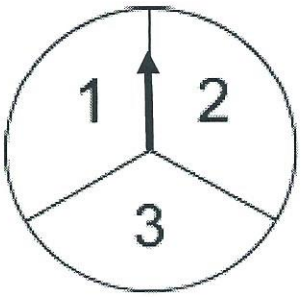
Name: _____ Probability

# Modeling Probability

Mr. Moreland rolls a fair number cube with faces numbered 1 through 6 and spins a spinner. The cube and the spinner are shown here.


1. What is the probability of rolling a 3 on the number cube?

2. What is the probability of spinning a 3 on the spinner?

3. Complete the area model to determine the possible outcomes if a number cube is rolled and the spinner above is spun. One of the cells has already been completed.

4. How many possible outcomes are there?

| Number Cube \ Spinner | 1 | 2 | 3 |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | 5, 2 | |
| 6 | | | |

5. What fraction of the possible outcomes represent rolling a 3 on the number cube?

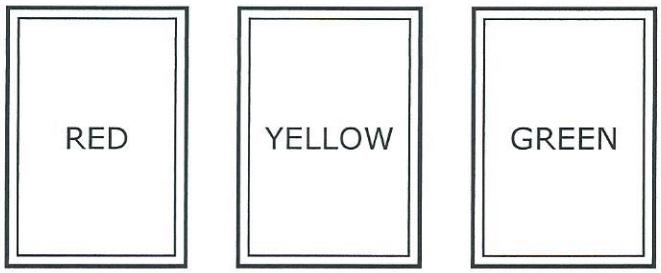
6. What fraction of the possible outcomes represent spinning a 3 on the spinner?

7. What fraction of the possible outcomes represent rolling a 3 and spinning a 3?

Name: _____ Probability

# Possibilities!

Craig was playing a game that required him to roll a number cube then draw a card at random. The number cube and cards are shown below.


1. Complete the area model to determine the possible outcomes if a number cube is rolled and then a card is drawn at random. Some of the cells have already been completed for you.

Color Cards

| Number Cube | Red | Yellow | Green |
|---|---|---|---|
| 1 | | | |
| 2 | | 2, Yellow | |
| 3 | | | |
| 4 | 4, Red | | |
| 5 | | | 5, Green |
| 6 | | | |

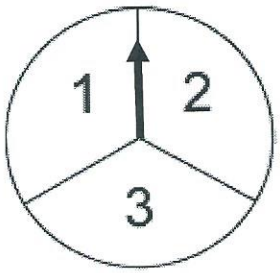
2. How many possible outcomes are there?

3. What is the probability of rolling a 4 and drawing a yellow card?

4. What is the probability of rolling an even number and drawing a yellow card?

## Probability Area Models (p 1)

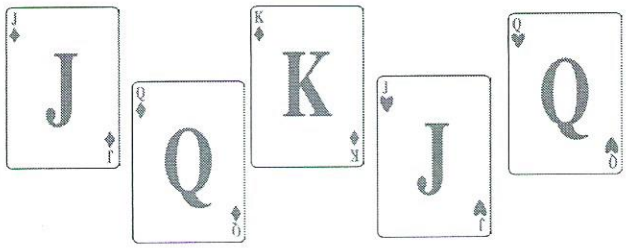
Mr. Moreland rolls a fair number cube with faces numbered 1 through 6 and spins a spinner. The cube and the spinner are shown here.


| Number Cube \ Spinner | 1 | 2 | 3 |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | 5, 2 | |
| 6 | | | |

## Probability Area Models (p 2)

Duncan flips a fair coin and draws a card. The coin and cards are shown here.


Cards

| Coin | J♦ | Q♦ | K♦ | J♥ | Q♥ |
|---|---|---|---|---|---|
| H | | | | | |
| T | | | | | |

P(Heads) × P(Jack)