Date _____

1.1 What's the Chance?

Focus: theoretical probability, number sense

Chapter 1

Warm Up

1. a) How many weeks are in 1 year? _____

b) How many weeks are in half a year? _____

2. a) How many seasons are in 1 year? _____

b) Each season is the same length. How many weeks are in each season? _____

3. Add.

a) 0.1 + 0.2 + 0.3 + 0.4

= _____

b) 20% + 25% + 30% + 15%

= _____

c) $\frac{20}{100} + \frac{13}{100} + \frac{27}{100} + \frac{40}{100}$

= _____

4. What fraction of a dollar is each coin?

=

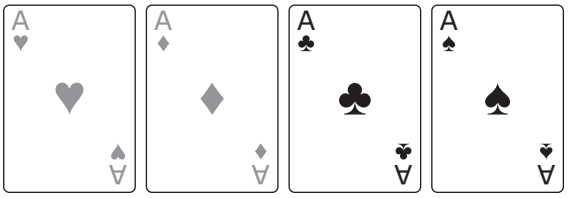
=

=

Calculating Theoretical Probability

1. There are 52 cards in a standard deck of cards.

- There are 4 different suits.
- Two suits have red symbols. These are the hearts and diamonds.
- Two suits have black symbols. These are the clubs and spades.
- Each suit has numbered cards from 2 to 10, plus a jack, a queen, a king, and an ace.



heart diamond club spade

You have a full deck of cards. What is the probability of picking the following card?

a) a heart _____

b) a black card _____

c) a red card _____

d) an ace _____

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- The chance of something happening is its **theoretical probability**.

Go to pages 1–2 to write the definition for **theoretical probability** in your own words.

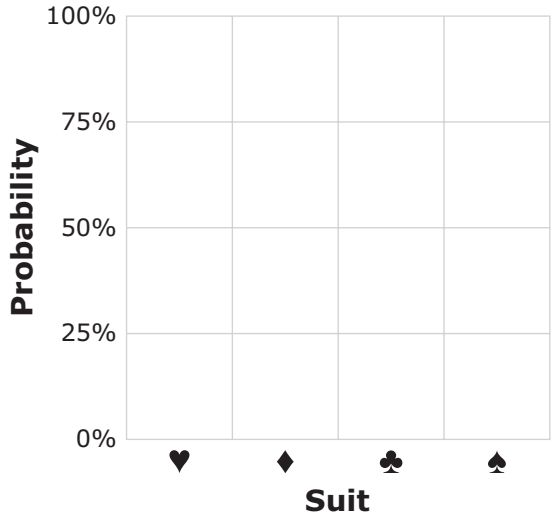
2. Use your answers from #1 to show the probability of picking the following cards. Show each probability 3 ways.

	Write as a Fraction	Write as a Decimal	Write as a Percent
a) A Heart			
b) A Black Card			
c) A Red Card			
d) An Ace			

3. a) What is the probability of picking a club from a full deck of cards? Write your answer as a percent. _____

b) What is the probability of picking a diamond? Write your answer as a percent. _____

c) Create a bar graph showing the probability of picking any 1 suit if you pull only 1 card from a full deck.
- Include a title for the graph.



d) What is the probability of picking a club, a spade, a heart, or a diamond from a full deck? Write your answer as a percent.

_____

_____

e) Explain your answer to part d).

_____

_____

_____

_____

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4. a) What does this roll of a die show? _____

b) What is the probability of rolling a 2 with 1 die?

Write your answer as a fraction. _____

Die is the singular form of the word _____.

c) What is the probability of rolling a 5? _____

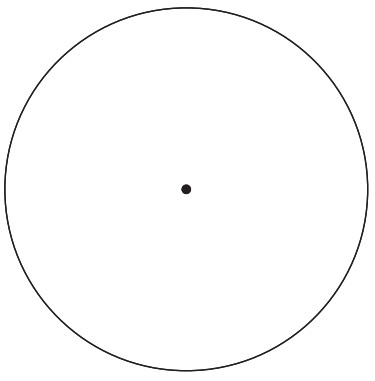
d) Create a bar graph showing the probability of rolling each number when you roll 1 die.
- Include a title for the graph.
- Label each axis.

e) What is the probability of rolling a die and getting a 7? _____

f) Explain your answer to part e).

_____

5. You flip a coin. Create and label a circle graph showing the probability of getting heads or tails.
- Include a title.
- Label each sector.



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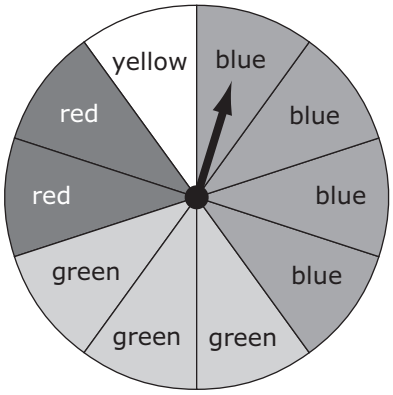
6. a) State the probability of the spinner below landing on each colour. Write your answer as a percent.



Blue: _____

Green: _____

Red: _____

Yellow: _____

b) What is the probability of the spinner landing on yellow or blue? _____

c) What is the probability of the spinner landing on green or blue? _____

d) What is the probability of the spinner *not* landing on blue? _____

☑ Check Your Understanding

1. Fill in each blank with the appropriate phrase.

It will happen. It is not likely to happen.
It is likely to happen. It will not happen.
It might happen, it might not.