Name: _____ Date: _____

9.3 Circle Graphs

Student Text pp. 286–291

Example 1: Draw a Circle Graph

40 students were surveyed to find their favourite activity at the beach.

Draw a circle graph to display the data.

Beach Activity	Number of People
Building sandcastles	10
Playing sports	3
Swimming	20
Tanning	7

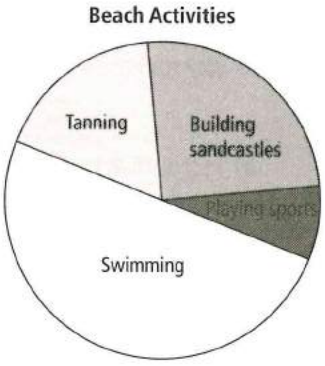
Solution

Method 1: Work With the Fractions You Know

Beach Activity	Number of People	Fraction	Size of Section
Swimming	20	$\frac{20}{40}$	This is the same as one-half.
Building sandcastles	10	$\frac{10}{40}$	This is the same as one-quarter.

Method 2: Calculate Section Angles

Beach Activity	Number of People	Fraction	Decimal	Section Angle
Tanning	7	$\frac{7}{40}$	$7 \div 40 = 0.175$	$0.175 \times 360° = 63°$
Playing sports	3	$\frac{3}{40}$	$3 \div 40 = 0.075$	$0.075 \times 360° = 27°$



Draw a circle. Use a protractor to measure each section.

Shade or colour the sections if you wish.

Example 2: Read and Interpret a Circle Graph

Kanmeer made a circle graph of how he spent his time one day.

How many hours did Kanmeer spend at school or doing homework that day?

Solution

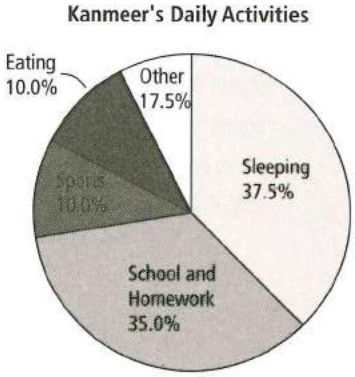
Kanmeer spent 35% of his day at school or doing homework.

There are 24 hours in a day.

Find 35% of 24.

$35\% \text{ of } 24 = 0.35 \times 24$

$= 1.8 \text{ hours}$



Name: _____ Date: _____

Practise

1. 60 people were surveyed about their favourite type of snack food.

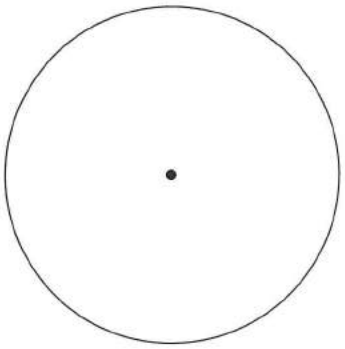
a) Complete the table of calculations.

Snack Food	Number of People	Fraction	Decimal	Section Angle
Chocolate	25			
Peanuts	10			
Chips	15			
Other				
Total	60			

Hint

Do not round your decimal number. Use the number on your calculator to find the section angle.

b) Draw a circle graph to show the data.



2. a) Of what group of clothing does Mona have the most items in her closet?

b) How many shorts and T-shirts does Mona have in her closet?

c) How many dresses are in Mona's closet?

Apply

3. Jeffery is a goaltender. He asked his sister Zoe to keep some statistics for him.

Result of Shots at Jeffery	Tally
Goals	||||
Saves	𝍸 𝍸 𝍸 |
Shots blocked	𝍸 |||
Shots missed the net	𝍸 𝍸 ||

a) Use the information in Zoe's tally sheet to create a circle graph of the data.

b) How can Jeffery use this data to convince his coach that the team's defensive players are doing a good job? Explain your answer.