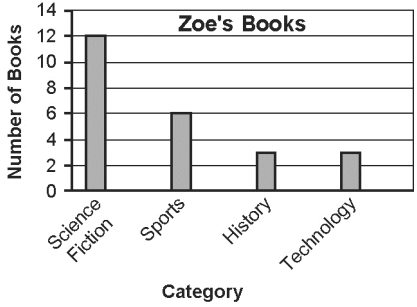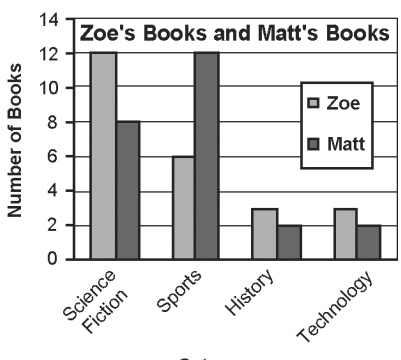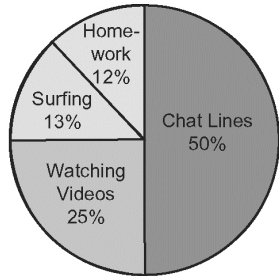Date:_____
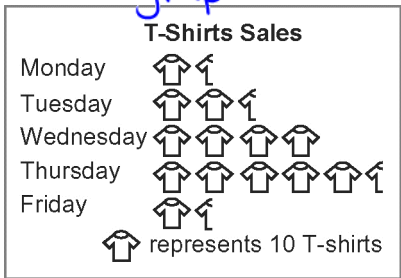
1.1 Advantages and Disadvantages of Different Graphs

Identify each graph:
Line Graph, Bar Graph, Double Bar Graph, Pictograph, Circle Graph

Bar Graph Zoe's Books *(bar graph showing Number of Books by Category: Science Fiction 12, Sports 6, History 3, Technology 3)*	Good for showing amounts in each category. Compare categories using intervals. - Can't find fractions or percents without doing some work.
Double Bar Graph Zoe's Books and Matt's Books *(double bar graph showing Number of Books by Category for Zoe and Matt: Science Fiction — Zoe 12, Matt 8; Sports — Zoe 6, Matt 12; History — Zoe 3, Matt 2; Technology — Zoe 3, Matt 2)*	- Great for comparing categories between 2 different groups. - can determine actual numbers - make comparisons using intervals. - not best for finding fractions or percents.
Circle Graph/Pie Chart Akira's Week on Internet (20 h) *(pie chart: Homework 12%, Surfing 13%, Watching Videos 25%, Chat Lines 50%)*	Very good for comparing fractions or percents. - not great for finding numbers. fraction → percent numerator ÷ denominator × 100

2

Pictograph

T-Shirts Sales

Monday 👕👕
Tuesday 👕👕👕
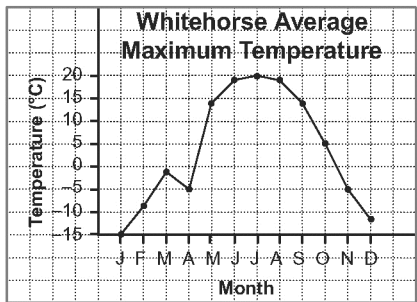Wednesday 👕👕👕👕
Thursday 👕👕👕👕👕
Friday 👕👕

👕 represents 10 T-shirts

- Visually appealing ways to compare amounts between categories.

- parts of symbols → estimate
- not good for percents / fractions

Line Graph

Whitehorse Average Maximum Temperature

Temperature (°C)
20, 15, 10, 5, 0, -5, -10, -15
J F M A M J J A S O N D
Month

- Great for showing changes over time

Christina is doing volunteer work in Uganda and asks several of the local people what their favourite music is. Use the table provided to create a bar graph showing their music preference
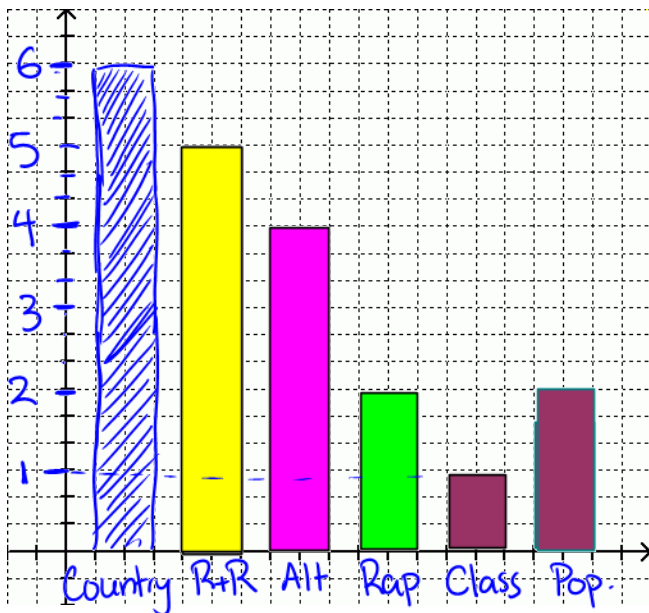
Music Preference	# of People
Country	6
Rock and Roll	5
Alternative	4
Rap	2
Classical	1
Pop	2

What kind of music was 3 times as popular as Rap?
How can you tell? Country has a bar that is 3 times as many intervals.

3

Drawing a Circle Graph

Alfonse wants to convert Christina's data into a circle graph. Two advantages of using a circle graph are:

- He can see __the fractions or percents.__

- He can predict __the amounts for larger groups__

Music Preference	# of People	Out of 100
Country	6	$\frac{6}{20} \times 100 = 30\%$
Rock and Roll	5	$\frac{5}{20} = \frac{25}{100}$ 25%
Alternative	4	20%
Rap	2	10%
Classical	1	5%
Pop	2	10%
Total Number	20	100%
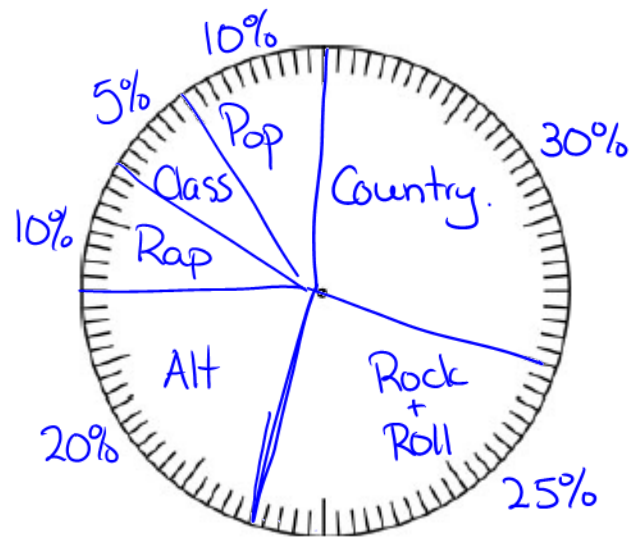
Suppose that there were 500 people surveyed. Could you make a prediction about how many people would like "Alternative" music?

$$\frac{20}{100} \overset{\times 5}{\underset{\times 5}{=}} \frac{100}{500}$$

100 out of 500 people would be expected.

How many people would like "Pop" music? There are two ways to find out!