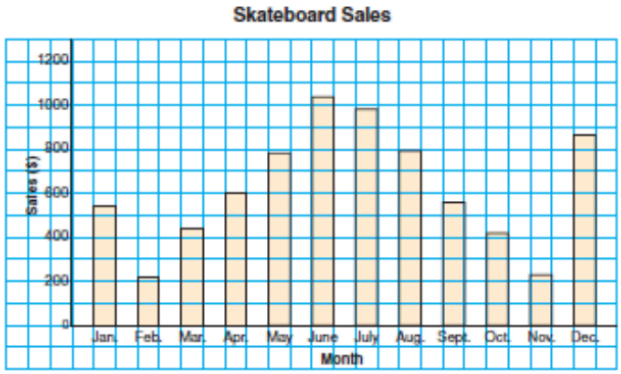
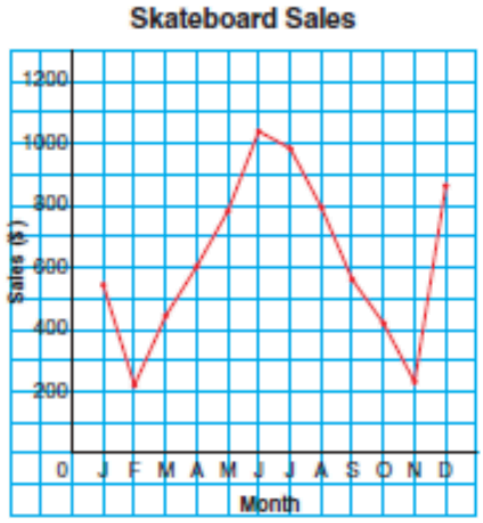
145-146

9A - Choosing An Appropriate Graph

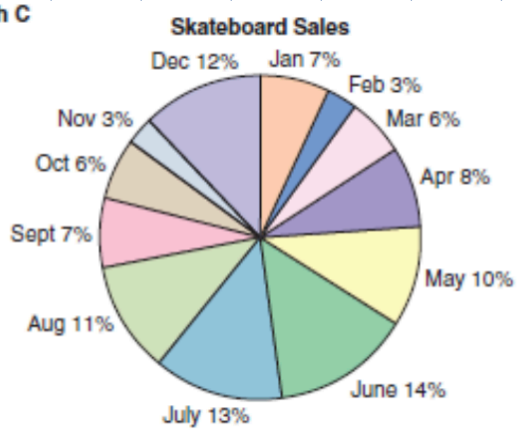
Graph A



Graph B



Graph C



① Which two months had the greatest skateboard sales?

June + July - from graph A - looked at two highest bars.

② What is the range in skateboard sales?

~200 - 1000 - from graph B

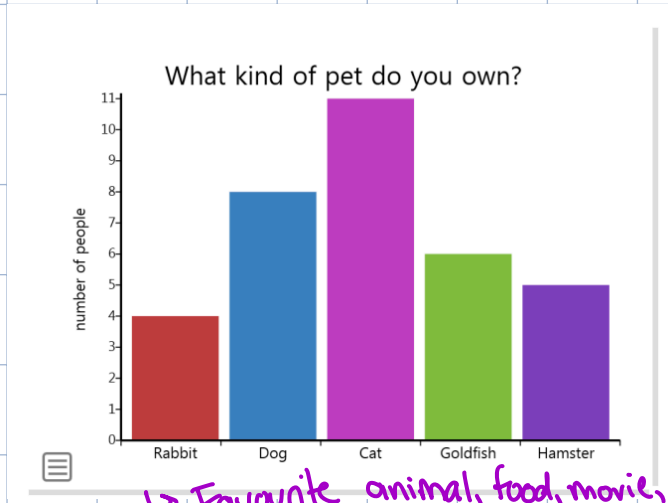
③ What percent of skateboard sales occured in May?

10% - graph C

④ What are some of the advantages + disadvantages of each type of graph? What can I find out from one graph that I can't from another?

Choosing the ~right~ graph

Bar Graph



↳ Favourite animal, food, movie, etc.
↳ Vote/poll

When to use this graph?

↳ When comparing data in different categories

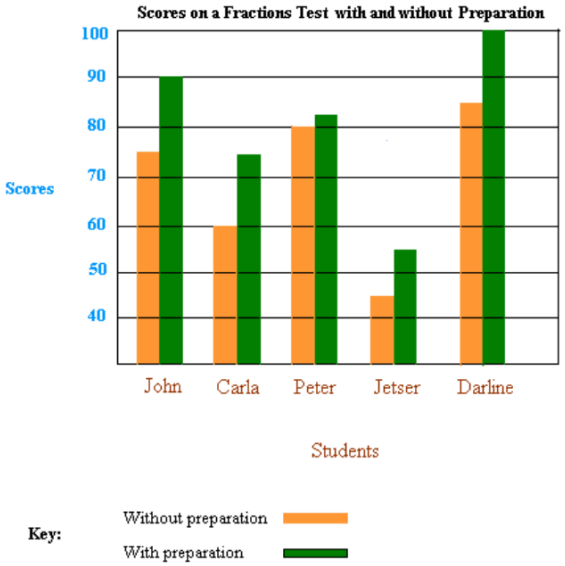
Strengths:

↳ Easy to read
↳ Good to compare separate groups/categories

Limitations

↳ Does not show change over time
↳ Can get complicated with lots of categories

Double Bar Graph



Strengths

↳ Easy to compare two(+) different things in categories
eg.) Boys vs Girls

Limitations

↳ Hard to read with too many

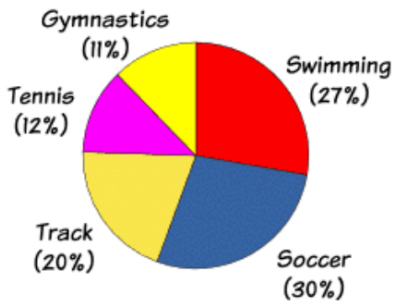
↳ New/old products
↳ with warm up/ without face time
↳ prep/no prep

bars
↳ Can be confusing without clear labels

When to use this graph?

↳ Compare two groups of data across the same category

Circle Graph



↳ probability
↳ election

When to use this graph?

↳ Showing how one whole is split into parts.

Strengths

↳ Good for showing percentage

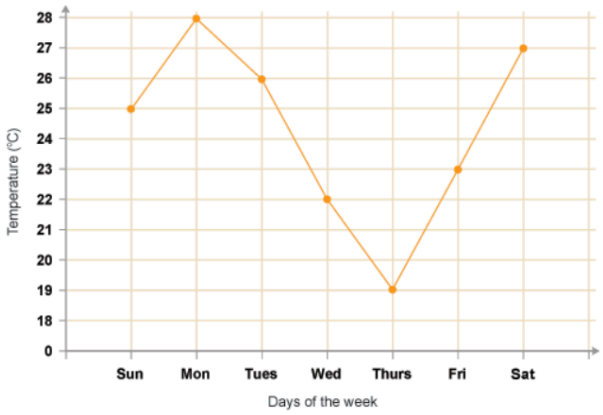
↳ Easy to see which data is bigger / smaller

Limitations

↳ Not great for showing exact number

↳ Hard to read with many pieces

Line Graph



↳ stocks/investments } $
↳ inflation
↳ weather

↳ temp
↳ time

When to use this graph?

↳ Showing something that changes (time, temp, etc.)

Strengths

↳ Good for tracking trends/time
↳ Showing trends or patterns
↳ Easy to see decrease or increase

Limitations

↳ Only works with numbers that change over time
↳ Can be hard to read with too many lines

Pictograph

Varities of Apples in a food store	
Red Delicious	🍎 🍎 🍎
Golden Delicious	🍎 🍎 🍏
Red Rome	🍎 🍎 🍎 🍎
McIntosh	🍎 🍎
Jonathan	🍎 🍎 🍎 🍏

🍎 = 10 apples 🍏 = 5 apples

Strengths

↳ Easy to understand
↳ Great for small or simple data

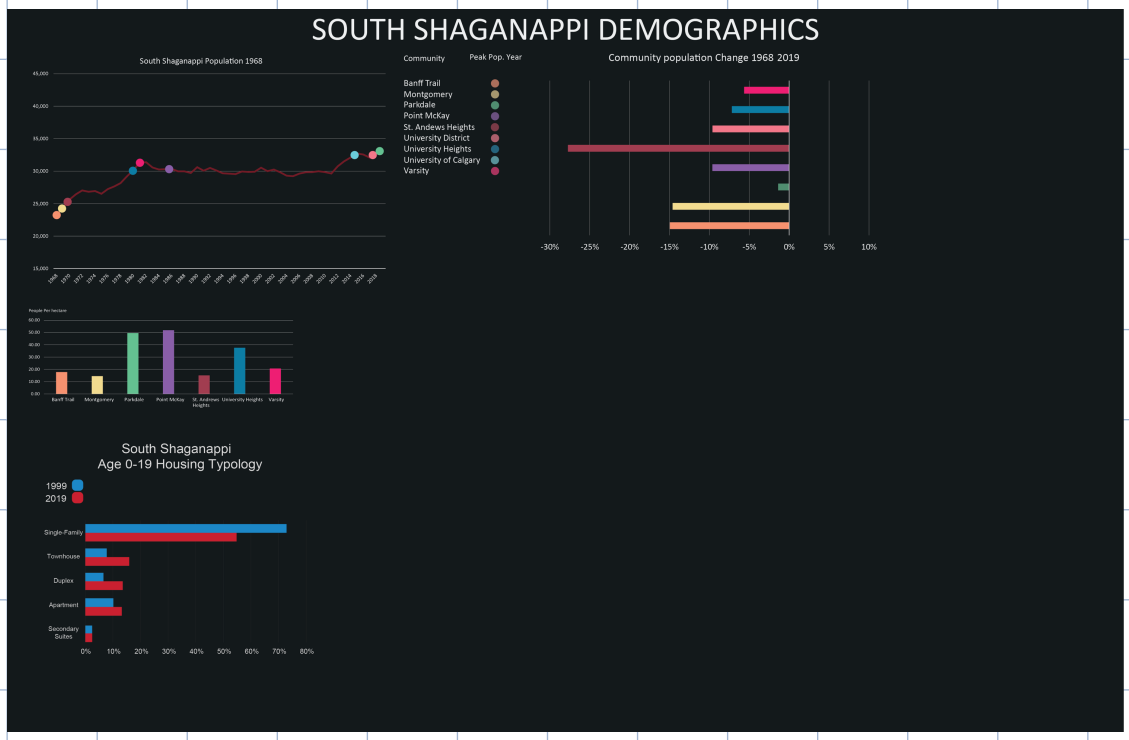
Limitations

↳ Not precise - hard to show parts of a symbol

When to use this graph?

↳ Creating a visual representation of data

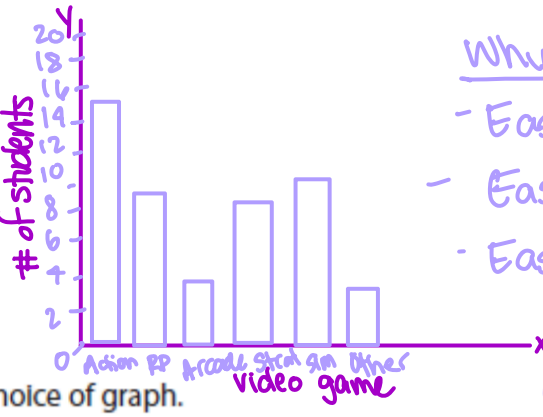
↳ Takes time to make



Example

This table shows the favourite types of video games of the Grade 8 students at L'ecole Orléans.

Type	Number of Students
Action	15
Role Playing	10
Arcade	4
Strategy	7
Simulation	11
Other	3



a) Graph these data. Justify your choice of graph.

b) What are the advantages and disadvantages of the graph you drew?

Why bar graph?
- Easy to read
- Easy to compare
- Easy to make

Cons
- No %
- Hard to pull data

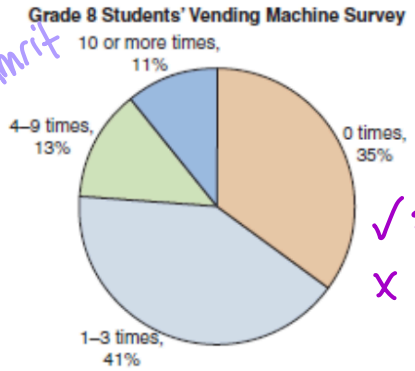
Example

Three students surveyed Grade 8 students in their school.
They asked: "How many times did you use a vending machine last week: 0 times, 1–3 times, 4–9 times, or 10 or more times?"
Amrit displayed the results on a circle graph.
Fred used a bar graph. Stella used a pictograph.

a) What are the strengths and limitations of each graph?

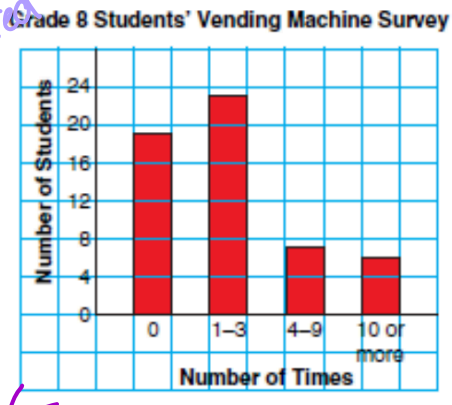
b) Which graph is appropriate? Justify your answer.

Amrit



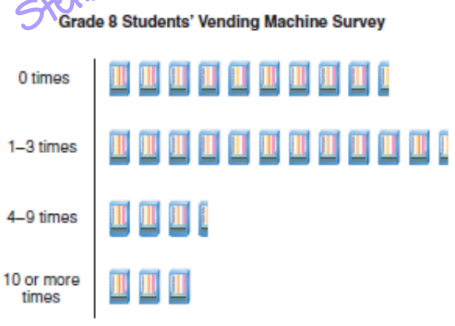
✓ See %
x No exact #s

Fred



✓ Easy to read + compare
x could be confusing w/ so much data

Stella



✓ Easy to understand, see it clearly
x Not exact data