

1.1

Advantages and Disadvantages of Different Graphs

A:

MathLinks 8, pages 6-17

Key Ideas Review

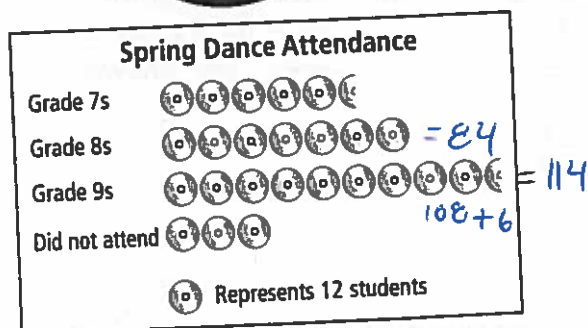
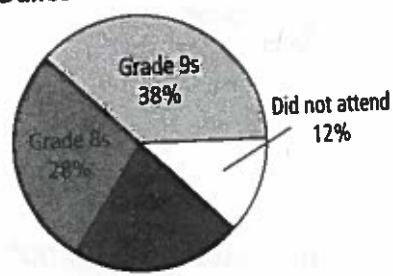
Column B lists several types of graphs. Write the type of graph from column B that best matches the description in column A.

A	B
1. <u>Circle Graphs</u> are best for comparing categories to the whole using percents.	a) Bar graphs
2. <u>Line Graphs</u> are best for showing changes in data over time.	b) Line graphs
3. <u>Double Bar Graphs</u> are best for comparing two sets of data across categories.	c) Pictographs
4. <u>Pictographs</u> are best for comparing data that can be easily counted and represented using symbols.	d) <u>Circle graphs</u>
5. <u>Bar Graphs</u> are best for comparing data across categories.	e) Double bar graphs

Practise and Apply

6. The student council recorded the number of grade 7, 8, and 9 students who attended the spring dance.

Spring Dance Attendance (300 students)



a) How many more grade 9 students attended the dance compared to the number of grade 8 students? Which graph shows this more clearly? Explain.

$$\begin{array}{r} 114 \\ - 84 \\ \hline 30 \end{array}$$

30 students

Pictograph.

b) Which graph better shows the number of students who did not attend the dance? Justify your answer.

$3 \times 12 = 36$ students

Pictograph.

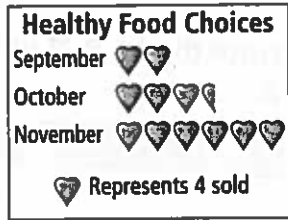
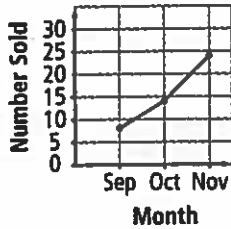
c) Describe one advantage of using each graph.

→ Circle - You can see the portions more accurately.

→ Pictograph - You know the exact # of students attending.

7. The graphs show the popularity of healthy food choices, such as mixes of nuts and dried fruit, sold in a school vending machine during the first three months of school.

Healthy Food Choices



a) How many more healthy items were sold in November compared to sales in September? Which graph displays this more clearly? Explain your answer.

Line Graph - You do not have to complete any calculations.

b) Between which two months was the greatest increase in sales of healthy items?

Between October and November.

c) Describe one disadvantage of using each graph.

Line Graph - Only approximate values can be determined.

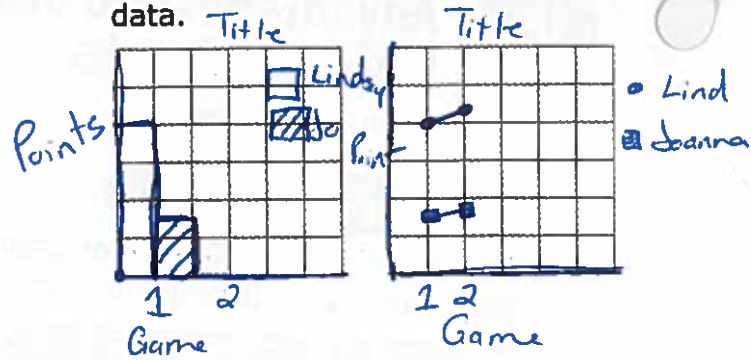
Pictograph - You must rely on calculations.

8. These tables show the points scored during the first five games of the girls' basketball season.

Lindsay	
Game	Points
1	18
2	22
3	16
4	20
5	30

Jo-Anna	
Game	Points
1	10
2	12
3	8
4	22
5	20

a) Draw a double bar graph and a double line graph to display these data.



b) Compare the two graphs you drew. Does one present the data more clearly? Explain your answer.

9. The table shows the number of games Leah sold at the Village Games Shop in July.

Type of Game	Number Sold
Puzzle	7
Board	13
Computer	10
Video	5

a) Choose one type of graph to display these data. Explain your choice.

b) Would a line graph be a good choice to display these data? Justify your answer.