

WORKSHEET

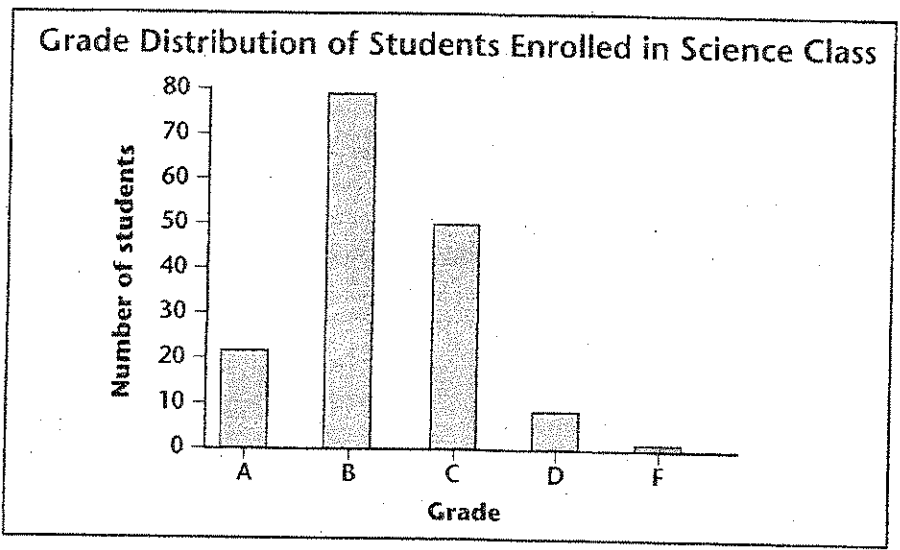
25 COMMUNICATING SKILLS

Introduction to Graphs

Examine the following table and graph:

Grade Distribution for Students Enrolled in Science Class

Grade	Number of students
A	22
B	79
C	50
D	9
F	2



1. Both of these figures display the same information but in different ways. Which figure is easier to understand? Explain why you think so.

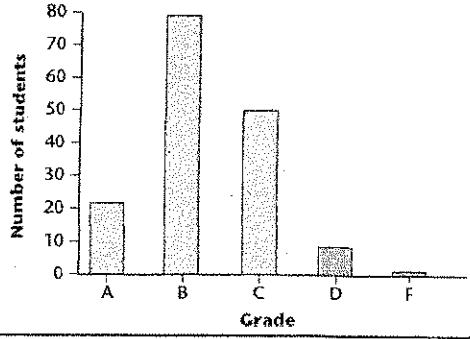
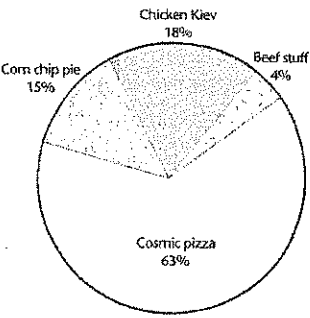
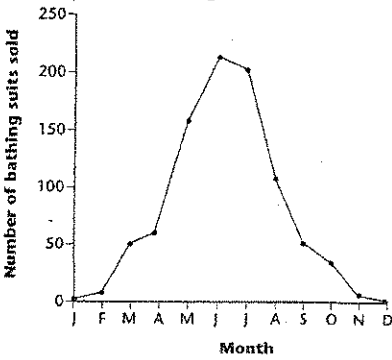
2. If you need to get specific data, such as the exact number of students who earned a B, which figure would you use? Explain your answer.

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Introduction to Graphs, continued

Choosing the Right Graph

Data tables provide an organized way of viewing information, and graphs are *pictures* of the information in a data table. Sometimes it is faster and easier to interpret data by looking at a graph. It is important to choose the type of graph that best illustrates your data. The following table summarizes the best uses for three of the most common graphs:

Type of graph	Best use for this graph																										
<p>Bar graph Grade Distribution of Students Enrolled in Science Class</p>  <table border="1"> <caption>Grade Distribution of Students Enrolled in Science Class</caption> <thead> <tr> <th>Grade</th> <th>Number of students</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>20</td> </tr> <tr> <td>B</td> <td>78</td> </tr> <tr> <td>C</td> <td>50</td> </tr> <tr> <td>D</td> <td>10</td> </tr> <tr> <td>F</td> <td>2</td> </tr> </tbody> </table>	Grade	Number of students	A	20	B	78	C	50	D	10	F	2	<p>A bar graph is best used for comparing data quickly and easily, such as the grade distribution of students enrolled in science class or the growth of plants in different pots.</p>														
Grade	Number of students																										
A	20																										
B	78																										
C	50																										
D	10																										
F	2																										
<p>Pie graph Percentage of Students Picking Various Lunch Entrees</p>  <table border="1"> <caption>Percentage of Students Picking Various Lunch Entrees</caption> <thead> <tr> <th>Entree</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Cosmic pizza</td> <td>63%</td> </tr> <tr> <td>Chicken Kiev</td> <td>18%</td> </tr> <tr> <td>Corn chip pie</td> <td>15%</td> </tr> <tr> <td>Beef stuff</td> <td>4%</td> </tr> </tbody> </table>	Entree	Percentage	Cosmic pizza	63%	Chicken Kiev	18%	Corn chip pie	15%	Beef stuff	4%	<p>A pie graph is best used for showing percentages, such as the percentage of the student body who picked certain entrees for lunch or the percentage of your allowance that will go toward purchasing various things.</p>																
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Cosmic pizza	63%																										
Chicken Kiev	18%																										
Corn chip pie	15%																										
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<p>Line graph Number of Bathing Suits Sold Each Month</p>  <table border="1"> <caption>Number of Bathing Suits Sold Each Month</caption> <thead> <tr> <th>Month</th> <th>Number of bathing suits sold</th> </tr> </thead> <tbody> <tr> <td>J</td> <td>10</td> </tr> <tr> <td>F</td> <td>20</td> </tr> <tr> <td>M</td> <td>50</td> </tr> <tr> <td>A</td> <td>60</td> </tr> <tr> <td>M</td> <td>150</td> </tr> <tr> <td>J</td> <td>210</td> </tr> <tr> <td>J</td> <td>200</td> </tr> <tr> <td>A</td> <td>100</td> </tr> <tr> <td>S</td> <td>50</td> </tr> <tr> <td>O</td> <td>30</td> </tr> <tr> <td>N</td> <td>10</td> </tr> <tr> <td>D</td> <td>5</td> </tr> </tbody> </table>	Month	Number of bathing suits sold	J	10	F	20	M	50	A	60	M	150	J	210	J	200	A	100	S	50	O	30	N	10	D	5	<p>A line graph is best used for looking at changes over time, such as the number of bathing suits sold each month during the year or the change in your sister's height throughout the year.</p>
Month	Number of bathing suits sold																										
J	10																										
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Introduction to Graphs, continued

Choose the Graph

What graph type do you think best presents each set of data? Explain.

Choose one to graph on the back of the page

1. The percentage of rabbits preferring various foods

Food	Percentage preferring that food
Skippy's Rabbit Chow	32
Homemade rabbit food	13
Happy Rabbit	10
Joe's Special Food for Rabbits	44
Premium Rabbit Nutrition Diet	1

2. Albert's grades for each month of the school year

Month	Grade in science class
September	98
October	94
November	88
December	78
January	82

Month	Grade in science class
February	83
March	86
April	81
May	97

3. The pH of solutions in experimental test tubes

Test-tube number	pH
1	6.7
2	7.1
3	7.4
4	7.1
5	7.0