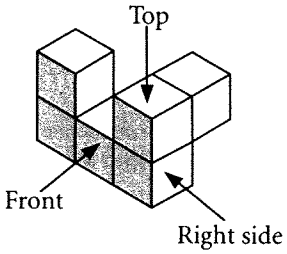
Unit Review

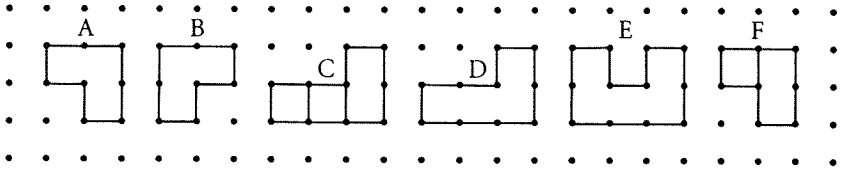
LESSON

8.1 **1.** Match each of the front, top, and side views of this object to the correct figure.

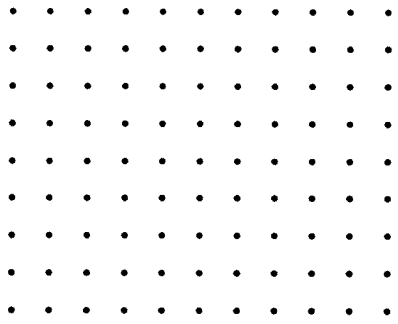


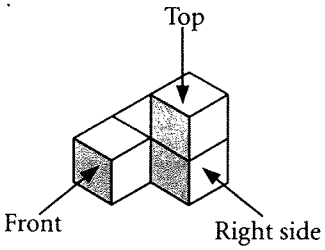
Front: _____ Top: _____

Left side: _____ Right side: _____

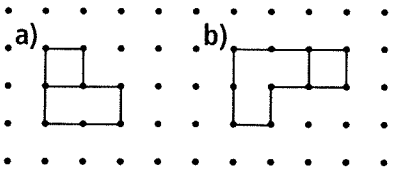


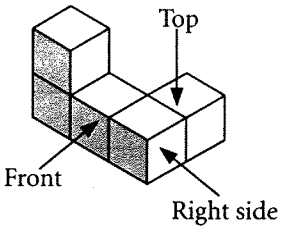
2. Sketch the front, top, and side views of this object.





8.2 **3.** This object is rotated horizontally. The two new views are shown.





Describe the rotation that produced each view.

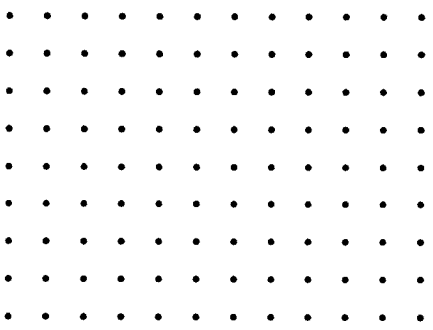
a) This is the front view after a rotation of _____

b) This is the top view after a rotation of _____

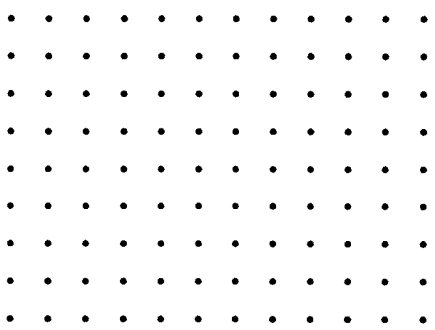
LESSON

4. Use linking cubes to build the object in question 3.
Draw the views of the object after each rotation.

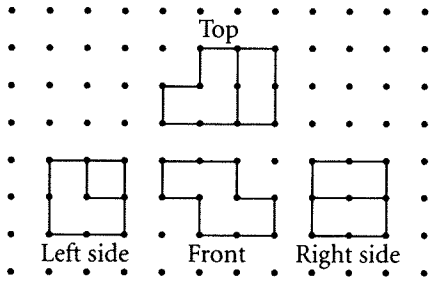
a) a vertical rotation of 90° toward you

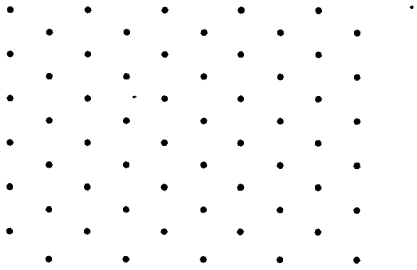


b) a vertical rotation of 180°



8.3 **5.** Use these views to build an object. How can you check that the object is correct?





8.4 **6.** Match each transformation of the shaded shape to its image.

a) a translation 1 unit right and 3 units up _____

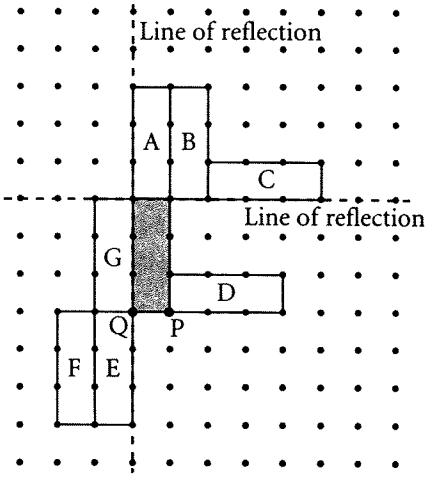
b) a translation 2 units left and 3 units down _____

c) a reflection in the vertical line _____

d) a reflection in the horizontal line _____

e) a rotation of 180° about point Q _____

f) a rotation of 90° clockwise about point P _____



LESSON

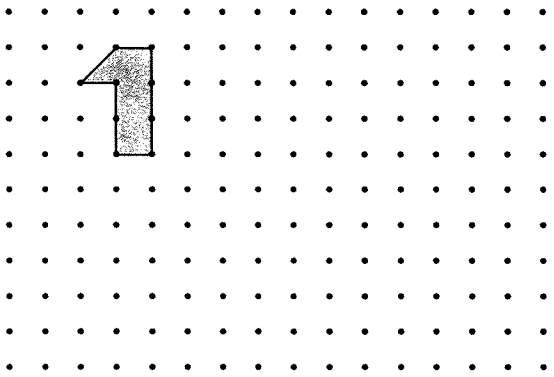
8.5 **7.** Which of these shapes tessellate? Justify your answer.

a) a triangle with angles 58°, 102°, and 20°

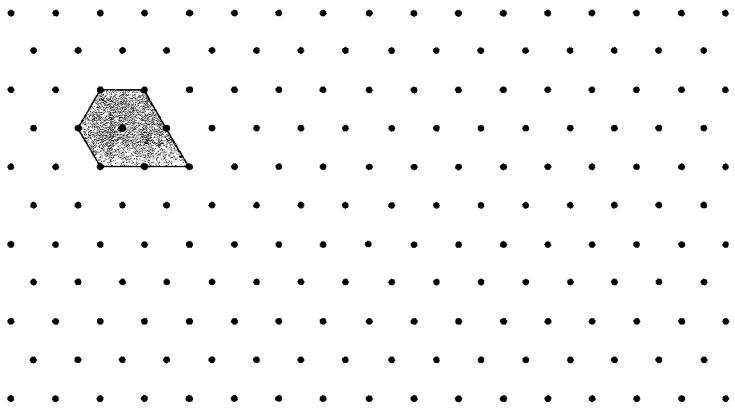
b) a square

c) a regular 12-sided polygon with each angle 150°

8. The shaded shape does not tessellate. Combine it with another shape to form a composite shape that tessellates. Show your tessellation.



8.6 **9. a)** Use the shaded shape to create a tessellation on isometric dot paper.



b) Use as many different transformations as you can, and describe the transformations you used.

Chapter 7 Review – Date Analysis and Probability

- ✓ Choosing an appropriate graph
- ✓ Misrepresenting data
- ✓ Probability and independent events
- ✓ Solving problems involving independent events

Extra Practice: Text book pages 425 - 427

In Your Words

Here are some of the important mathematical words of this unit.
Build your own glossary by recording definitions and examples here. The first one is done for you.

appropriate graph graph with certain features that enables questions to be answered or information to be drawn easily from the displayed data. For example, a circle graph shows the parts of a whole better than a line graph does.

misrepresentation of data

discrete data

possible outcomes

probability of an event

independent events

List other mathematical words you need to know.

Unit Review

LESSON

7.1 **1.** Each year, the Grade 8 classes collect food items for a charity. The table shows the number of items the classes collected for 6 years.

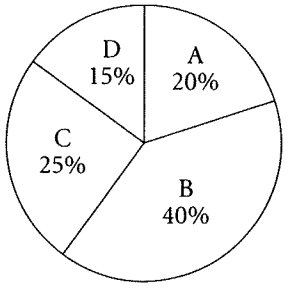
Food Drive Collection

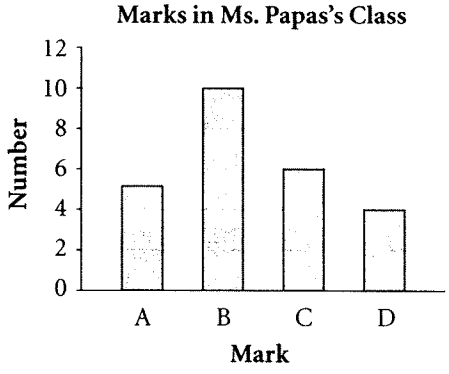
Year	Number of Items
2003	120
2004	155
2005	161
2006	180
2007	196
2008	210

Nicolas wants to display the data on a line graph. Martina wants to use a circle graph, and Nicole is pushing for a bar graph.

Which graph do you think is a good choice? Explain your answer.

2. These 2 graphs show the marks of students in Ms. Papas's class.



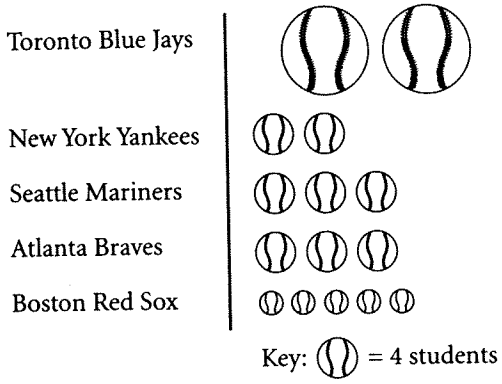


a) The principal asks Ms. Papas: "What fraction of your class got an A?" Which graph is easier to use to respond to this question? Explain.

b) "How many students got a D?" Which graph can provide the answer? Explain.

3. Some Grade 8 students were asked to name their favourite major league baseball team. The graph shows the results.

Favourite MLB Team



a) How many students named the Toronto Blue Jays? _____

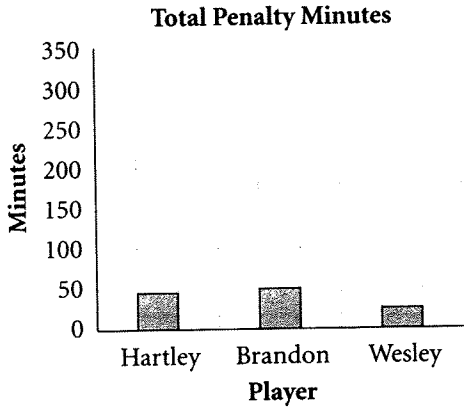
b) How many students named the Boston Red Sox? _____

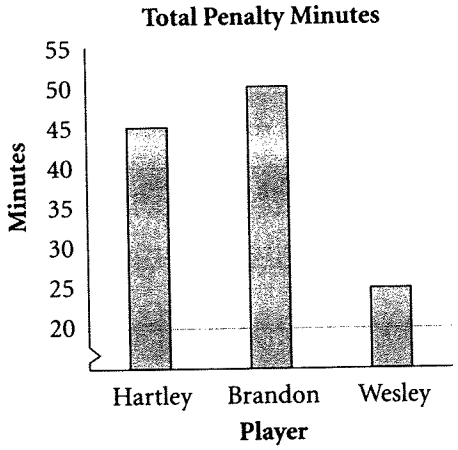
c) What aspect of the graph is misleading? Explain.

_____

_____

4. These graphs show the penalty minutes in hockey for three players.





a) In the first graph, how do the total penalty minutes of the 3 players compare?

_____

b) In the second graph, how do the total penalty minutes of the three players compare?

_____

_____

c) The data in the two graphs are the same. What features of the graphs create the dramatic difference in their appearance?

_____

_____

LESSON

5. The table shows the average salary of employees of a company over 8 years.

The employees are asking for a raise in salary for the next year.

The manager wants to show that the raise should be lower. The employees want to show that the raise should be higher.

Construct two appropriate graphs for the manager and the employees.

Average Employee Salary

Year	Salary
2002	$26 000
2003	$26 500
2004	$27 500
2005	$28 500
2006	$30 000
2007	$30 500
2008	$32 000

7.3 **6.** Identify which pair of events is a pair that are not independent. Explain your answer.

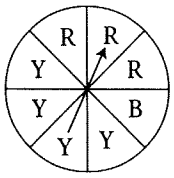
a) Roll two regular 6-sided dice.

b) Toss a penny and a nickel one after the other.

c) Remove 1 card from a standard deck of 52 cards and then remove a second card.

LESSON

7. The pointer on the spinner with 8 congruent sectors is spun twice.



Find the probability of each event:

a) a red and then a blue

_____

b) a yellow and then a red

_____

c) a blue on both spins

_____

8. A regular die labelled 1 to 6 is rolled and a quarter is tossed. Find the probability of each event:

a) an odd number and a tail _____

b) a number greater than 4 and a head _____

7.4 **9. a)** A quarter, a penny, and a dime are tossed. Find the probability of each event:

i) heads on the quarter and the penny and a tail on the dime

_____

ii) all 3 tails _____

b) Explain why the probability of "all 3 tails" is the same as that of "all 3 heads."

_____

_____

10. A box contains 26 cards, each with a letter of the alphabet on it. Stephanie draws a card from the box and puts it back in the box. She repeats this procedure 2 more times for a total of 3 draws.

Tip

Consider Y to be a consonant for this experiment.

Find the probability of each event:

a) an A, then an F, then a G _____

b) a vowel, then 2 consonants _____

c) all vowels _____