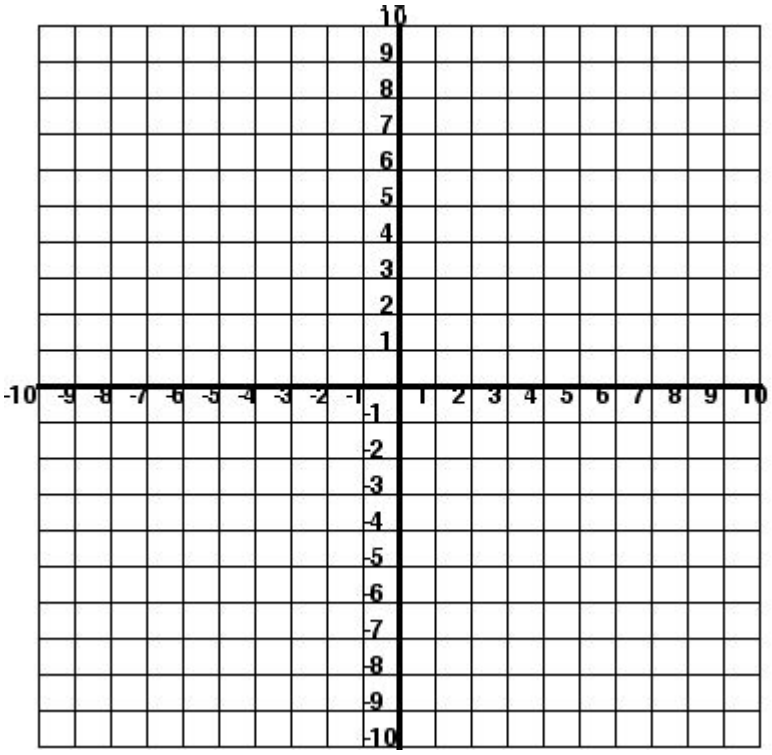
Lesson 1: Are You Ready?

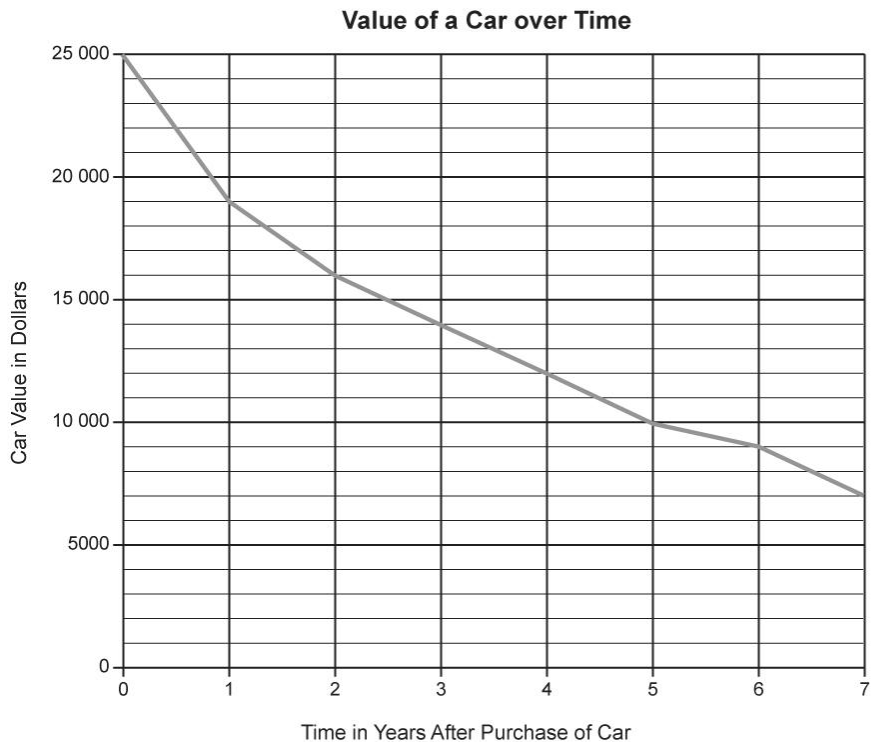
1. Plot the points below, and join them in the order indicated.

   - (1, –9)
   - (5, –9)
   - (4, 9)
   - (–4, 9)
   - (–5, –2)
   - (0, –7)
   - (1, –9)



What does the resulting shape represent?

2. Examine the graph and answer the following questions.



a. What is the title of this graph?

b. What variable is represented on the horizontal axis of this graph?

c. What is the scale of the horizontal axis?

d. What variable is represented on the vertical axis of this graph?

e. What is the scale of the vertical axis?

f. What is the original purchase price of the car?

g. What does the point (1, 19 000) mean?

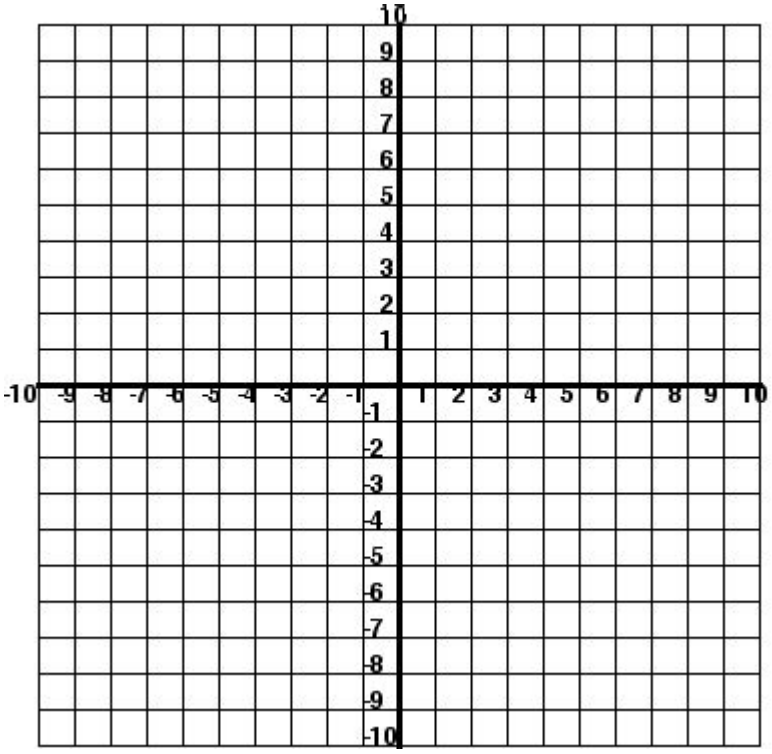
h. Write an ordered pair that represents the value of the car after two years.

i. In how many years will the car be worth $12 000?

j. How much will the car be worth after six years?

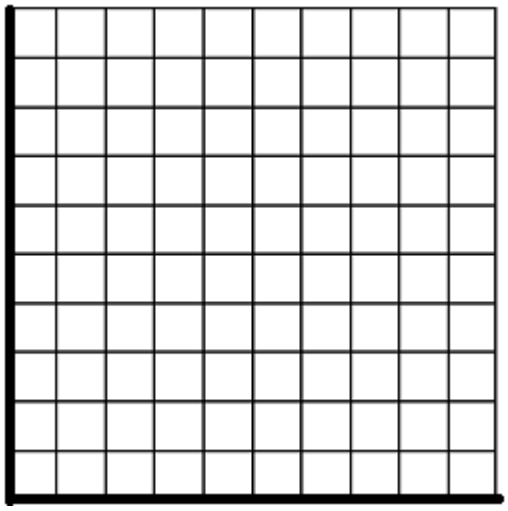
3. The following chart gives the maximum temperature at Edmonton airport from January 9 to January 16. Graph the data. Construct a broken-line graph by first plotting the data. Then join adjacent points with a line segment using the data in the table.

Date	Temperature (°C)
Jan. 9	2
Jan. 10	3.5
Jan. 11	5.9
Jan. 12	4
Jan. 13	0.5
Jan. 14	2
Jan. 15	6.4
Jan. 16	2.7



4. Sound travels about one-third of a kilometre per second. Therefore, the distance you are from a thunderstorm can be estimated by counting the number of seconds between seeing the lightning and hearing the resulting thunder and dividing this number by 3. This rule can be expressed by the formula $d = \frac{t}{3}$, where *d* is the distance (in kilometres) from the storm and *t* is the time (in seconds) between seeing the lightning and hearing the thunder.

   a. Complete the following table.

Time Between Seeing Lightning and Hearing Thunder (s)	Distance from Lightning (km)
3	
6	
9	

   b. Use the table of values to construct a line graph. Make sure to put your scale on the grid and label the axes.