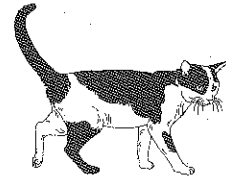


A **bar graph** has 4 parts:

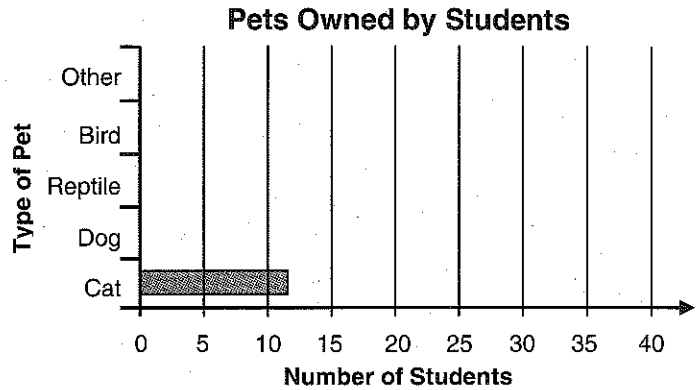
- a vertical and horizontal **axis**
- a **scale**
- **labels** (including a title)
- **data** (given by the bars)



The bars in a bar graph can either be vertical or horizontal. The scale tells how much each square on the axis represents. The labels indicate what the data in the bars is.

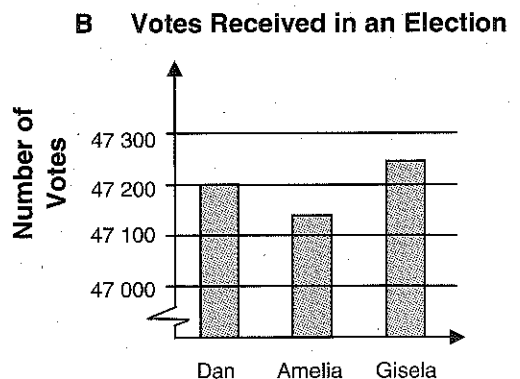
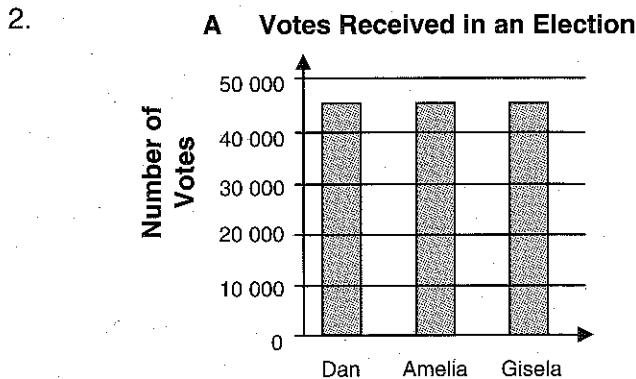
1.


Pets Owned by Students	Number of Students
Cat	12
Dog	15
Reptile	6
Bird	3
Other	10



- Complete the bar graph.
- What scale was used in the bar graph? Do you think it was a good choice? Why or why not?

- Would you predict similar results for the students in your class? Explain.



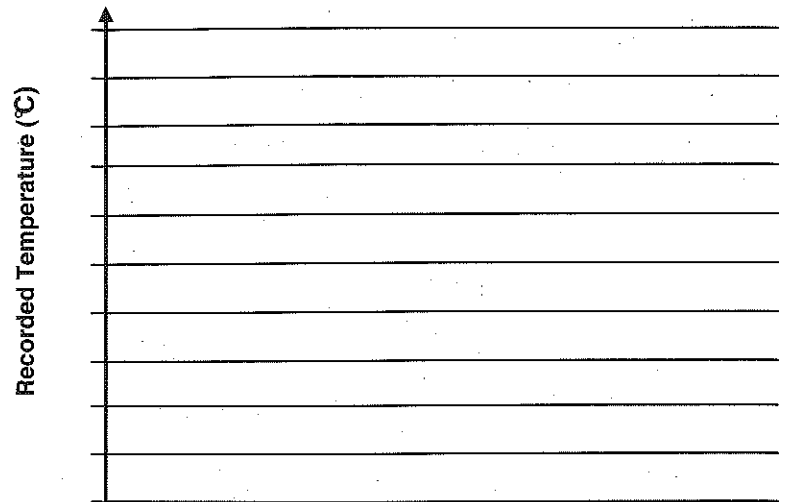
- Find the scale on each bar graph.
- Which graph makes it easier to tell the difference in votes for each candidate?

- Who won the election?

Graph A: start at _____, count by _____, stop at _____.
Graph B: start at _____, count by _____, stop at _____.

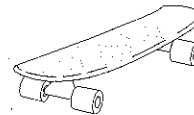
3. Complete the bar graph to display the following data.

Recorded Temperatures by City (in °C)	
Brandon, MB	25°C
Medicine Hat, AB	27°C
Iqaluit, NU	12°C
Yarmouth, NS	21°C
Thunder Bay, ON	24°C

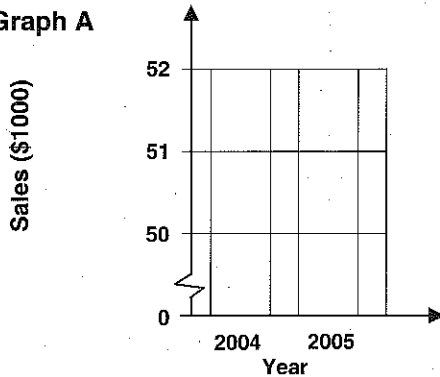
HINT: Use the letters B, M, I, Y, and T as short forms for the city names on your graph.



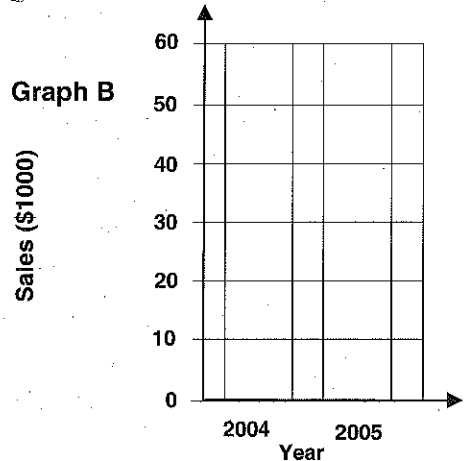
4. A skateboard company had \$50 000 in sales in 2004, and \$52 000 in sales in 2005. Show this data using the following two scales.



Graph A



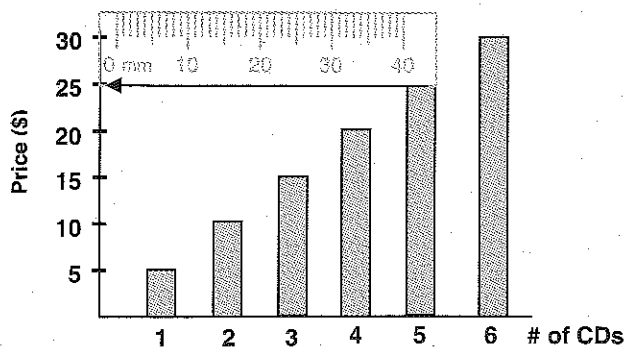
Graph B



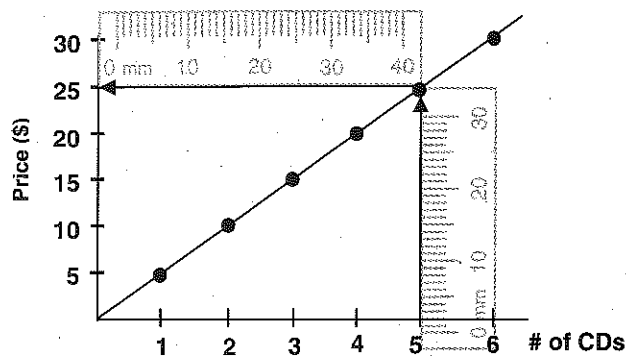
- a) Which graph makes it appear as though the sales in 2005 were three times the sales in 2004?
- b) Which graph makes it appear as though the sales in 2005 were only slightly more than the sales in 2004?
- c) Which graph do you think best represents the data? Explain.
5. What scale would you use if you had to plot the following numbers? (Say what numbers the scale would stop and start at, and what size the intervals would be). Explain your choices.
- a) 3, 2, 7, 9, 10
- b) 14, 2, 16, 4, 8
- c) 250, 1 000, 2 000
- d) 12 000, 11 500, 12 500

The bar graph and the line graph below both show the price of CDs on sale.

Using a ruler, you could draw an arrow across from the '5 CD' bar to show 5 CDs cost \$25.



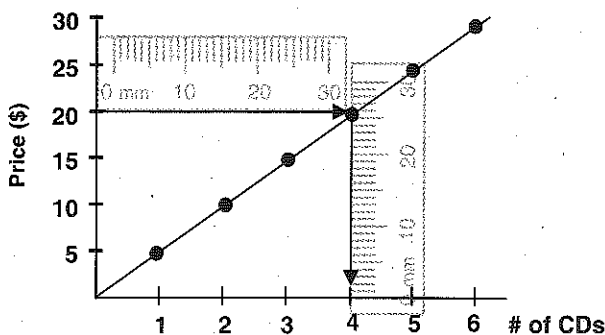
Similarly you could draw a line up from the '5 CD' mark and then across to the \$25 mark.



1. Draw arrows (using a ruler!) on the line graph above to find the cost of ...

- a) 3 CDs: \$ _____ b) 4 CDs: \$ _____ c) 6 CDs: \$ _____

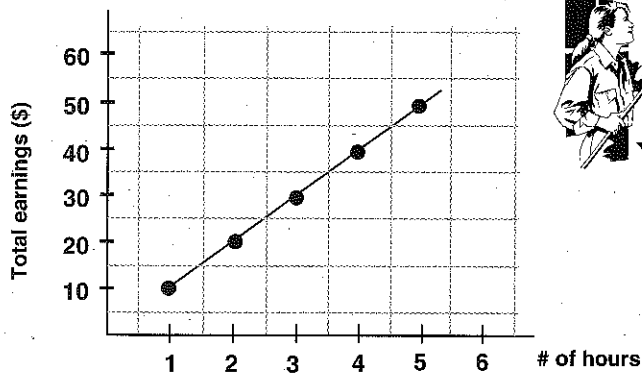
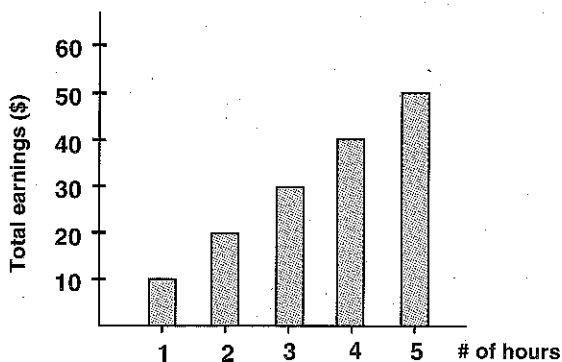
2. To find out how many CDs you can buy for \$20, you could draw arrows as shown.



Draw arrows (using a ruler!) on the line graph to find how many CDs you can buy for:

- a) \$15: _____ CDs
 b) \$25: _____ CDs
 c) \$30: _____ CDs

3. These graphs show how much money Sally will earn painting houses in the summer.



- a) On both graphs, show how much Sally would make for working: i) 3 hours ii) 4 hours
 b) Draw arrows on the line graph to show how much Sally will earn in $3\frac{1}{2}$ hours.
 c) Extend the line graph to show how much Sally could make in: i) 6 hours ii) $\frac{1}{2}$ hour
 d) Explain an advantage of a line graph over a bar graph.

