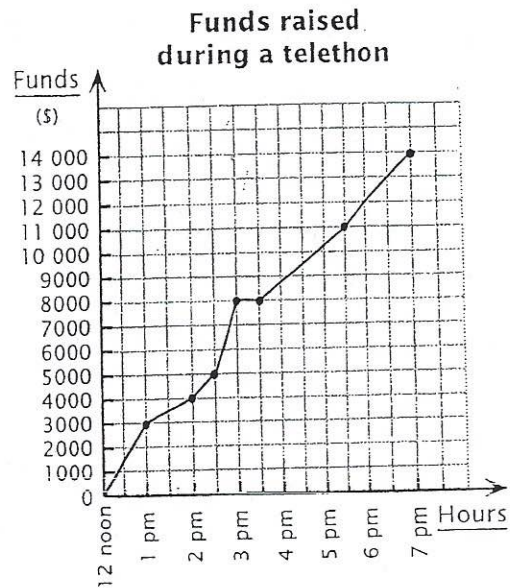# Sec.2 GRAPHING

3. This broken-line diagram represents the money raised during each hour of a telethon.

a) How much money was raised between noon and 3 pm? _____

b) How much money was raised between 2 pm and the end of the telethon? _____

c) In which half-hour period was the most money raised?

_____

Funds raised during a telethon

4. Over a given time period, each of these containers is filled. The height of the liquid is observed periodically. Connect each container with the graph that corresponds to it.

a)

1)

b)

2)

c)

3)

①
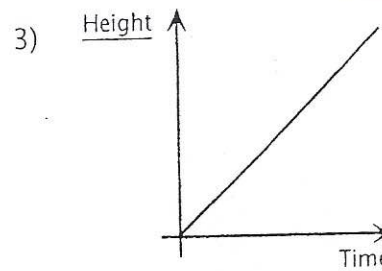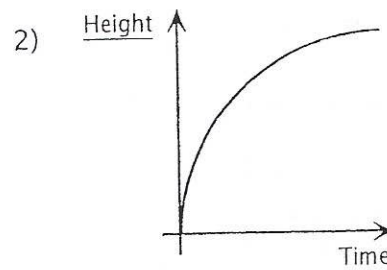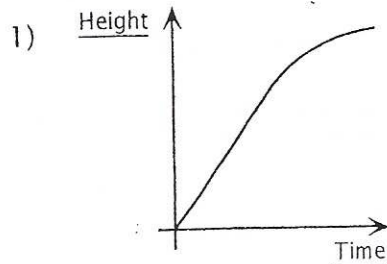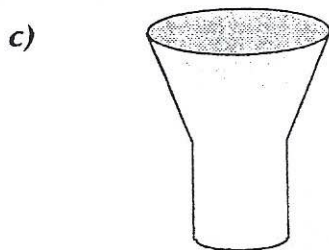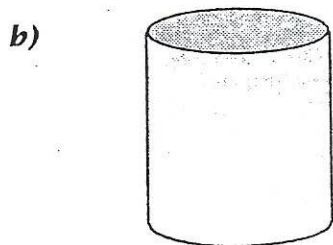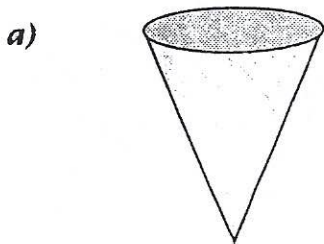
5. This graph shows a company's profits and losses between 1984 and 1993. Complete the following sentences.

From 1984 to 1987, the company's profits _____ continually. After decreasing by $ _____ between 1987 and 1988, they remained _____ from 1988 to _____ . After this period, profits _____ dramatically. The company suffered a _____ between 1991 and 1992. From 1992 to 1993, the company once again showed _____ .

Profits and losses for company: 1984–1993

Profits ($ Millions)

Year: 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993
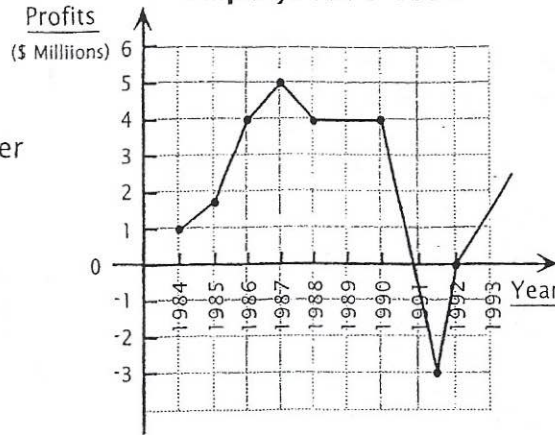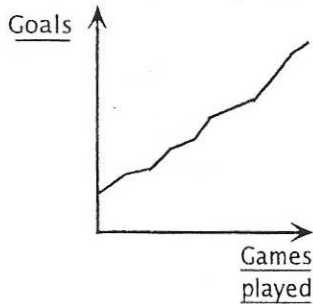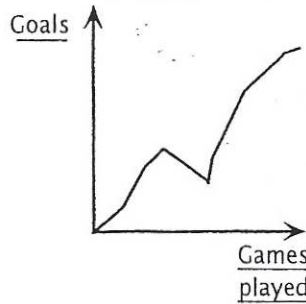
6.

Which of the four graphs could represent my total goals scored this season for the number of games played? Circle the letter.
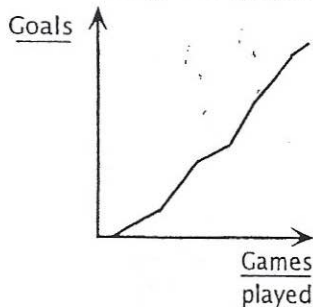
A) Total goals in relation to games played

Goals / Games played
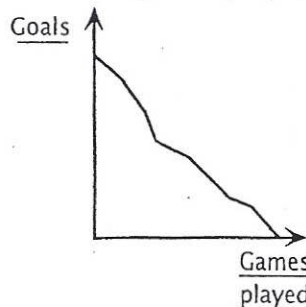
B) Total goals in relation to games played

Goals / Games played

C) Total goals in relation to games played

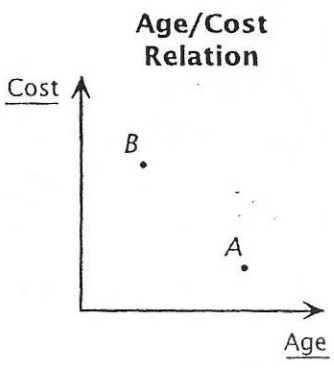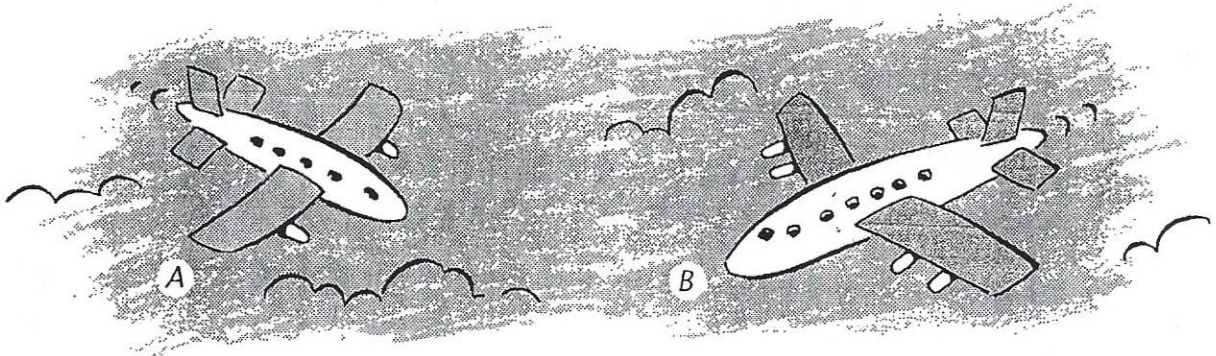Goals / Games played

D) Total goals in relation to games played

Goals / Games played

Justify your answer.

_____

_____

7. These graphs compare airplane A and airplane B. The first graph shows the relation between the age of the planes and their cost. The second graph shows the relation between the planes' size and speed.

Age/Cost Relation

Cost ↑

B.

A.

→ Age

Size/Speed Relation

Speed ↑

B.

A.

→ Size
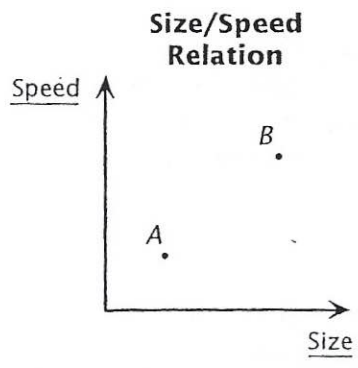
a) The first graph shows that airplane B is more expensive than airplane A. What else can be observed from this graph?

_____

b) True or false?

1) The older plane is less expensive.   _____

2) The smaller plane is faster.   _____

3) The largest plane is also the oldest.   _____

c) Place points A and B to show the relation between the age and speed of these two kinds of airplane.
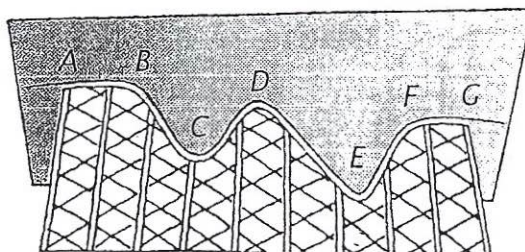
Speed ↑

→ Age

③
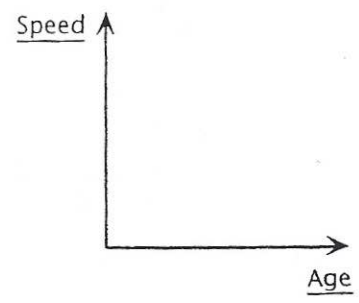
8. This graph shows the relation between a newspaper carrier's weekly salary and the number of clients she serves.

a) What is the carrier's base salary per week? _____

b) Describe in words the relation between the carrier's gross pay and the number of subscribers.

_____

_____

Weekly earnings and number of subscribers

Pay ($)
11
10
9
8
7
6
5
4
3
2
1

0   4   8   12 16 20 24 28 32 36 40
Subscriptions
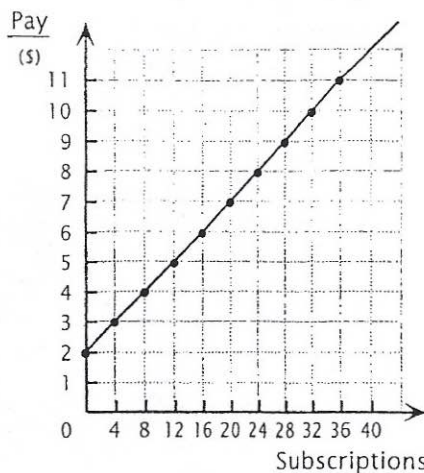
9. This drawing shows a section of a roller coaster track. Note that the roller coaster's speed is constant from point *A* to point *B*.

a) Complete these sentences to show how the roller coaster's speed varies between points *A* and *G*.

The roller coaster's speed is _____ from *A* to *B*. It _____ from *B* to *C*, then _____ between *C* and *D*. It _____ again from *D* to *E* and then _____ from *E* to *F*. Finally, the speed becomes _____ once again from *F* to *G*.

b) Complete the graph to show the relationship between the different sections of the track and the speed of the roller coaster.

Speed

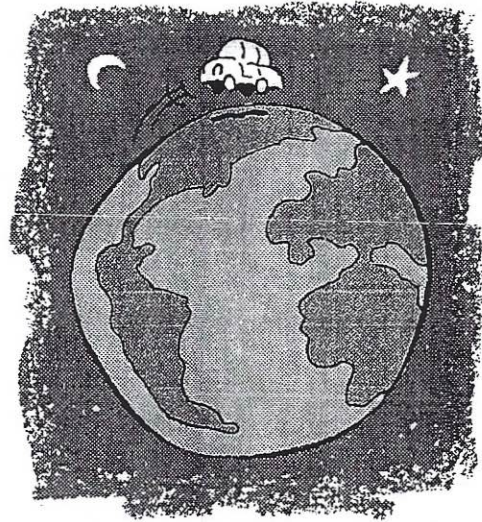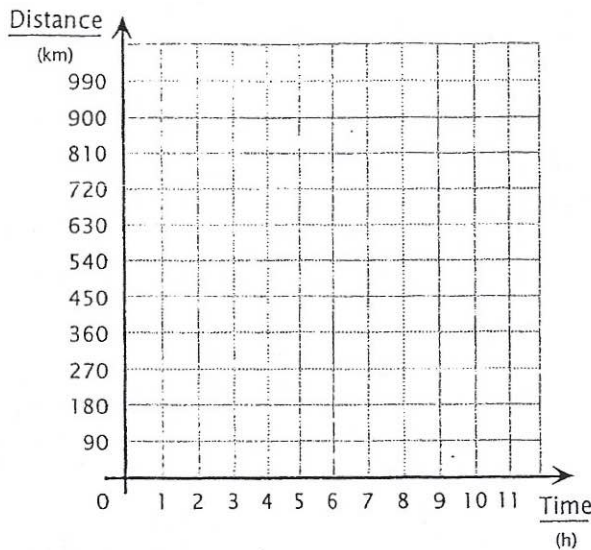A   B   C   D   E   F   G
Sections of track

(4)
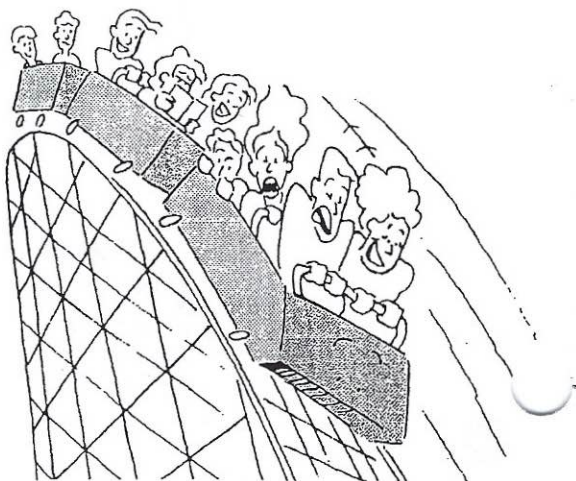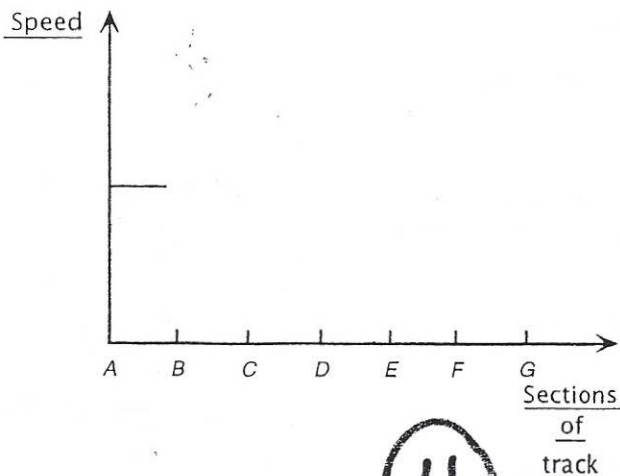
3. In Quebec, some secondary highways have a speed limit of 90 km/h.

a) Complete this table of values to show distance covered at this speed in the given time.

Time (h)	1	2	5	10	...	x
Distance (km)						

b) Represent this relation on the Cartesian plane.

c) If a driver maintains the speed limit, how much distance will she cover in 4 hours?

_____

5. This week, Didi deposited $15 in her new bank account. She wants to deposit $5 a week.

a) Complete the table of values showing Didi's savings in the coming weeks.

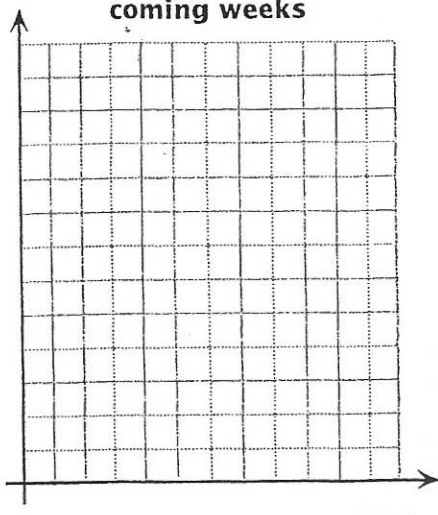| Week	1	2	3	4	5
Savings ($)	15$				

b) Represent this relation on the grid.

c) How much will she have saved after 11 weeks?

_____

d) How many weeks will it take her to save $100?

_____

e) Is this a proportional situation?

**Didi's savings in the coming weeks**

Saving ($)

10. Every ten seconds, Sherri wrote down the speed of a car she was riding in. Here are the data she collected from the start:

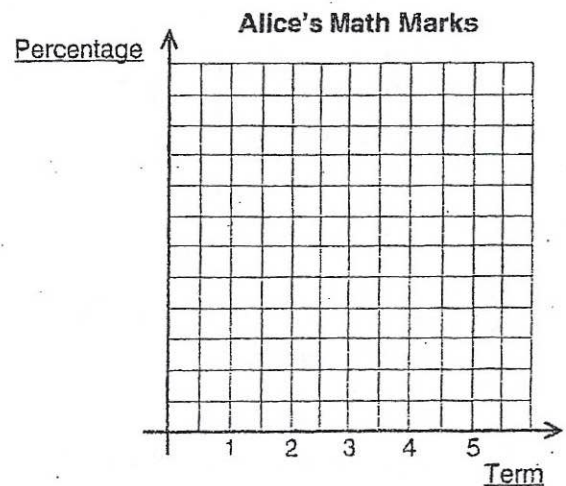| Elapsed time (in s)	0	10	20	30	40	50	60	70
Speed (km/h)	0	40	60	85	85	85	30	0

Using this table, **complete the following sentence.**

a) "The car accelerated between ▨▨▨ seconds and ▨▨▨ seconds."

b) "It slowed down between ▨▨▨ seconds and ▨▨▨ seconds."

11. The graph at right demonstrates the distance Joshua covered last week during a jet-ski ride.

a) **At what time** did he leave?

b) He told his girlfriend he stopped at an island to have lunch. **How long** did he stop to eat?

c) If the time spent eating is not included, **how long** did it take Joshua to travel 20 km?

d) The average speed is calculated by dividing the distance travelled by the time it took. What was Joshua's **average speed** during his jet-ski ride?

Joshua's Ride
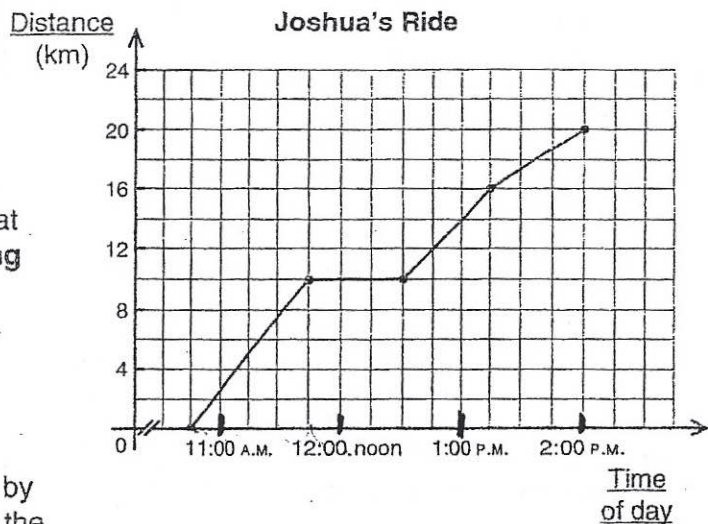
12. During the first term of school last year, Alice's math mark was 62%. Her mark went up by 5% with each subsequent term. **Represent** this situation using a **Cartesian graph.**

Alice's Math Marks