Lesson 2
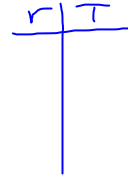## Types of Representations
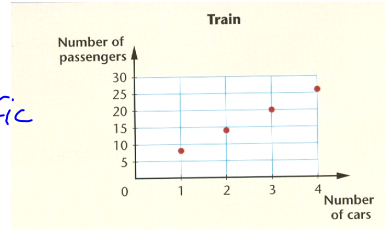
Ways to represent situations (textbook page 12)
- word description
- drawing
- table of values $(\text{lesson 4}) \rightarrow$
- graph
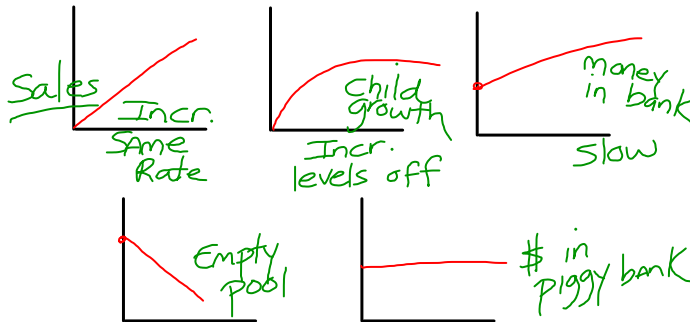- rule (lesson 4)

$r \mid T$

Graphs
- STORY
- Info. specific
- QUICK
- Easy

Train

Number of passengers

```
30
25
20
15
10
5
0    1    2    3    4
          Number
          of cars
```

Describing Graphs

Sales — Incr. Same Rate

Child growth — Incr. levels off

money in bank — slow

Empty pool

\$ in piggy bank

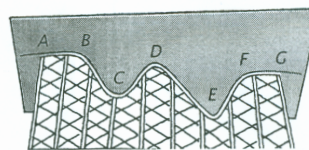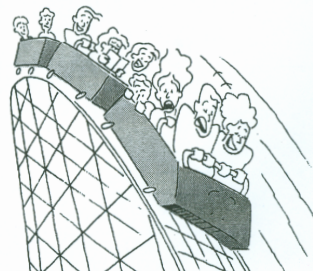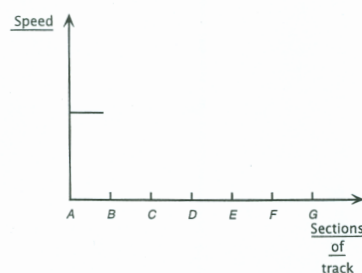## Roller coaster

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 B D F G C E

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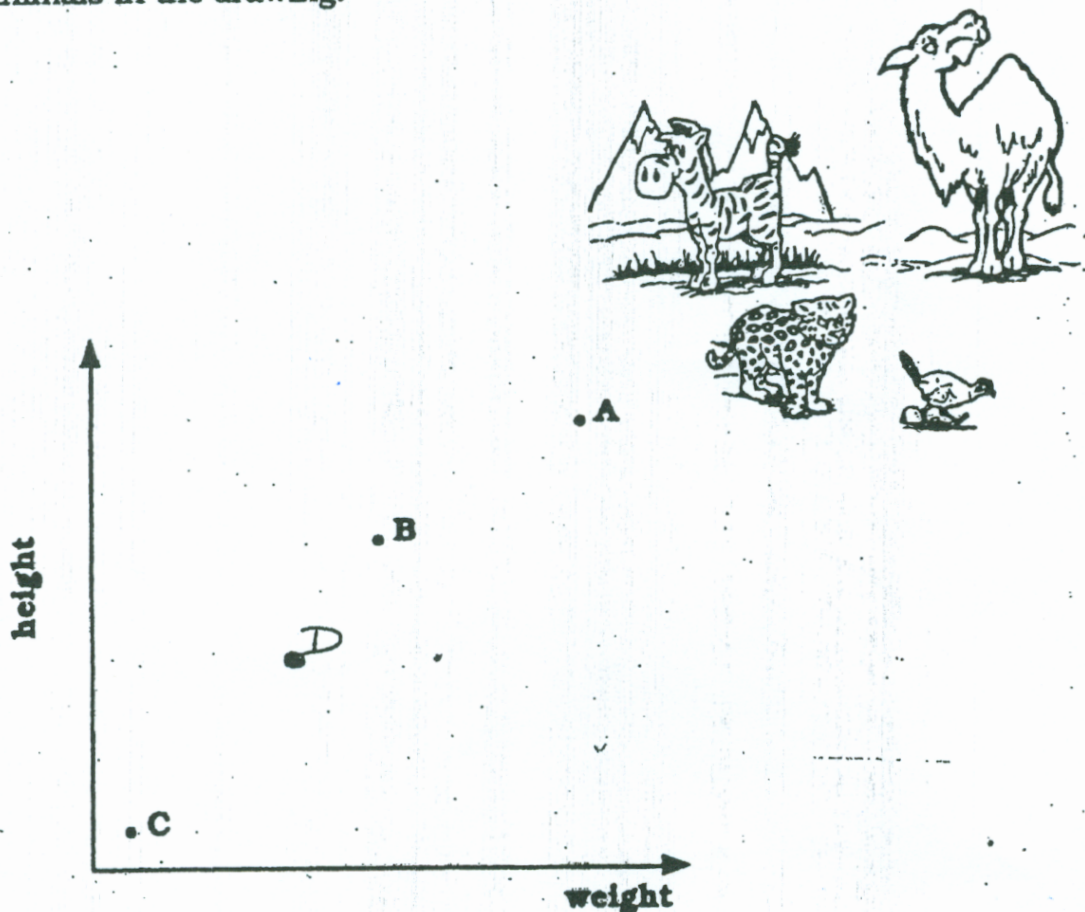
b) Complete the graph to show the relationship between the different sections of the track and the speed of the roller coaster.

Speed

```
A    B    C    D    E    F    G
                         Sections
                            of
                          track
```

Interpreting Data:

Activity 1
Translating From One Mode of Representation to Another

The points named on the graph tell us about the heights and weights of the animals in the drawing.

(a)   What are the two variables shown in the graph?

(b)   Decide which point matches each animal.

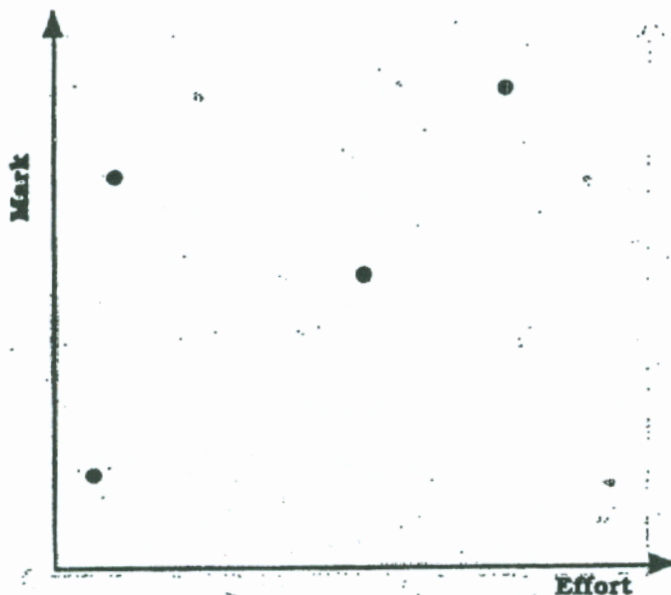(c)   Write a short paragraph to explain your choices.

Interpreting Data:

Activity 2

The points named on the graph below describe the school report cards for five students.

(a)   Here are some comments the teacher wrote on their reports:

- Ravi has not worked very hard this term. This has resulted in an extremely poor mark on his report.

- Frank is a very capable student, as his mark clearly shows. His concentration and behaviour in class are very poor. With more effort he could do very well in this subject.

- Charles has worked very well this term and deserves this marvellous mark. Bravo!

- Andre has worked reasonably well this term, and has achieved a satisfactory test mark.

Write each of the names Ravi, Frank, Charles and Andre next to the point you think it matches. Explain your reasoning.