## EXERCISE 15.3

1. Draw the graphs for the following tables of values, with suitable scales on the axes.
(a) Cost of apples.

| No. of apples | 1 | 2 | 3 | 4 | 5 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Cost (in Rs.) | 5 | 10 | 15 | 20 | 25 |

(b) Distance travelled by car.

| Time (in hours) | 6 a.m. | 7 a.m. | 8 a.m. | 9 a.m. |
| :--- | :--- | :--- | :--- | :--- |
| Distance (in km ) | 40 | 80 | 120 | 160 |

(i) How much distance did the car cover during the period 7.30 a.m. to 8 a.m.?
(ii) What was the time when the car had covered a distance of 100 km since its start?
(c) Interest on deposits for a year.

| Deposit (in Rs.) | 1000 | 2000 | 3000 | 4000 | 5000 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Simple Interest <br> (in Rs.) | 80 | 160 | 240 | 320 | 400 |

(i) Does the graph pass through the origin?
(ii) Use the graph to find the interest on Rs 2500 for a year.
(iii) To get an interest of Rs. 280 per year, how much money should be deposited?

Solution:
Mark "number of apples" on the $x$-axis and "cost" on the $y$-axis. The graph is
(a)

(b) Represent the "time" on the $x$-axis and "distance" on the $y$-axis.

(i) The car covered a distance of 20 km .
(ii) It was 7.30 am , when it covered a distance of 100 km .
(c) Represent "Deposit" on the $y$-axis and "simple interest" on the $x$-axis.

(i) Yes, the graph passes through the origin.
(ii) Interest on Rs. 2500 is Rs. 200 for a year.
(iii) Rs. 3500 should be deposited for the interest of Rs. 280.
2. Draw a graph for the following.
(i)

| Side of <br> square(in cm | 2 | 3 | 3.5 | 5 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Perimeter (in <br> $\mathrm{cm})$ | 8 | 12 | 14 | 20 | 24 |

Is it linear graph?
(ii)

| Side of square <br> (in cm | 2 | 3 | 4 | 5 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Area $\left(\right.$ in $\mathrm{cm}^{2}$ ) | 4 | 9 | 16 | 25 | 36 |

Is it a linear graph?

## Solution:

(i) Yes, it is a linear graph.

(ii) No, it is not a linear graph because the graph does not provide a straight line.


