Scatter Graphs

1) The scattergraph shows the height and weight of six children.
   a) What height is Fred?
   b) What weight is Eric?
   c) Which two children are the same height?
   d) Who is the lightest?
   e) Who is the shortest?

2) This graph shows a relation between the temperature during the day and the sales of ice lollies on that day.
   a) Suggest a connection between the temperature and the sale of ice lollies.
   b) Use the chart to estimate the number of ice lollies which might be sold when the temperature reaches 35 degrees.
   c) Estimate what the temperature was when thirteen ice lollies were sold?

3) This scattergraph shows the prices which taxi cabs charge for fairly short distances.
   a) Suggest a connection between the fare and the number of miles travelled.
   b) Use the chart to give a reasonable guess at how far you could go in a taxi for £1.50.
   c) How much do you think a 6 mile journey would cost?
4) Here is a table of exam marks (out of 50) from a modern languages department.

<table>
<thead>
<tr>
<th>Name</th>
<th>Ali</th>
<th>Bo</th>
<th>Ed</th>
<th>Dan</th>
<th>Flo</th>
<th>Hal</th>
<th>Nan</th>
<th>Pen</th>
<th>Rab</th>
<th>Sid</th>
</tr>
</thead>
<tbody>
<tr>
<td>German Mark</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>30</td>
<td>35</td>
<td>35</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>French Mark</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>15</td>
<td>30</td>
<td>30</td>
<td>40</td>
<td>40</td>
<td>45</td>
</tr>
</tbody>
</table>

a) Draw a diagram similar to the one shown, using the same scale for each axis.

b) Plot the information from the table to make a scatter diagram.

c) Describe some connections between the French marks and the German marks.

d) Draw a line of best fit through the points.

e) Use the graph to estimate what the German mark would be if the French mark was 35.

f) One person seems to go against the trend. Who is it, and what makes you think that?

5) Brad and his pals record the number of take away meals they deliver each evening, and the time it takes them.

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>25</th>
<th>22</th>
<th>20</th>
<th>20</th>
<th>15</th>
<th>13</th>
<th>9</th>
<th>15</th>
<th>17</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of meals</td>
<td>40</td>
<td>33</td>
<td>30</td>
<td>32</td>
<td>22</td>
<td>20</td>
<td>13</td>
<td>20</td>
<td>21</td>
<td>19</td>
</tr>
</tbody>
</table>

a) Draw up a set of axes on squared paper, with time on the horizontal axis and number of meals on the vertical axis. Using suitable scales draw a scatter diagram.

b) Estimate the time it would take Brad & Co. to deliver 28 meals.