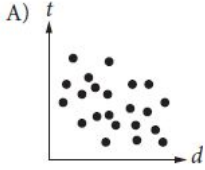
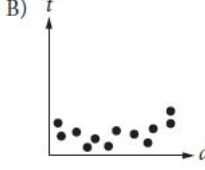
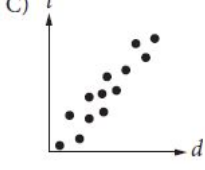
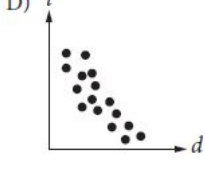
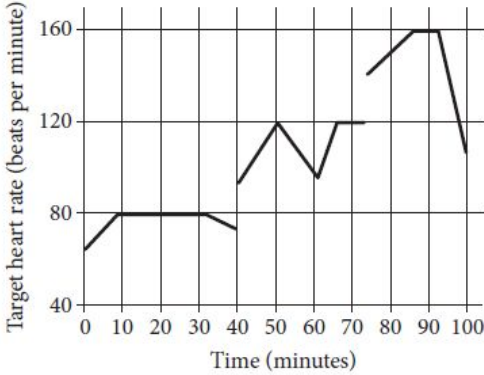
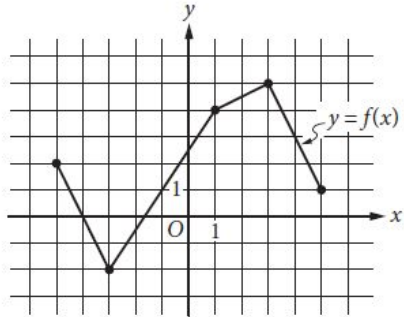
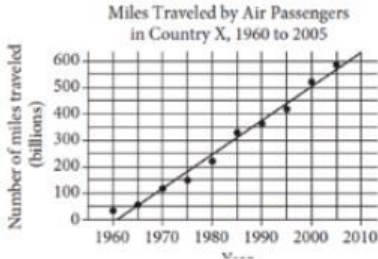


**Graphs: Level 1**

With Calculator

|   |   |                 |
|---|---|-----------------|
| 1 | <p>Which of the following graphs best shows a strong negative association between <math>d</math> and <math>t</math> ?</p> <p>A) </p> <p>B) </p> <p>C) </p> <p>D) </p> | With Calculator |
|---|---|-----------------|

|   |   |                 |
|---|---|-----------------|
| 2 | <p>John runs at different speeds as part of his training program. The graph shows his target heart rate at different times during his workout. On which interval is the target heart rate strictly increasing then strictly decreasing?</p>  <p>A) Between 0 and 30 minutes<br/>B) Between 40 and 60 minutes<br/>C) Between 50 and 65 minutes<br/>D) Between 70 and 90 minutes</p> | With Calculator |
| 3 | $y = x^2 - 6x + 8$ <p>The equation above represents a parabola in the <math>xy</math>-plane. Which of the following equivalent forms of the equation displays the <math>x</math>-intercepts of the parabola as constants or coefficients?</p> <p>A) <math>y - 8 = x^2 - 6x</math><br/>B) <math>y + 1 = (x - 3)^2</math><br/>C) <math>y = x(x - 6) + 8</math><br/>D) <math>y = (x - 2)(x - 4)</math></p>   | With Calculator |

|          |  |                        |
|----------|--|------------------------|
| <p>4</p> |  <p>The complete graph of the function <math>f</math> is shown in the <math>xy</math>-plane above. For what value of <math>x</math> is the value of <math>f(x)</math> at its minimum?</p> <p>A) <math>-5</math><br/>         B) <math>-3</math><br/>         C) <math>-2</math><br/>         D) <math>3</math></p>  | <p>With Calculator</p> |
| <p>5</p> | <p>In the <math>xy</math>-plane, the graph of function <math>f</math> has <math>x</math>-intercepts at <math>-3</math>, <math>-1</math>, and <math>1</math>. Which of the following could define <math>f</math>?</p> <p>A) <math>f(x) = (x - 3)(x - 1)(x + 1)</math><br/>         B) <math>f(x) = (x - 3)(x - 1)^2</math><br/>         C) <math>f(x) = (x - 1)(x + 1)(x + 3)</math><br/>         D) <math>f(x) = (x + 1)^2(x + 3)</math></p> | <p>With Calculator</p> |
| <p>6</p> |  <p>According to the line of best fit in the scatterplot above, which of the following best approximates the year in which the number of miles traveled by air passengers in Country X was estimated to be 550 billion?</p> <p>A) 1997<br/>         B) 2000<br/>         C) 2003<br/>         D) 2008</p>   | <p>With Calculator</p> |