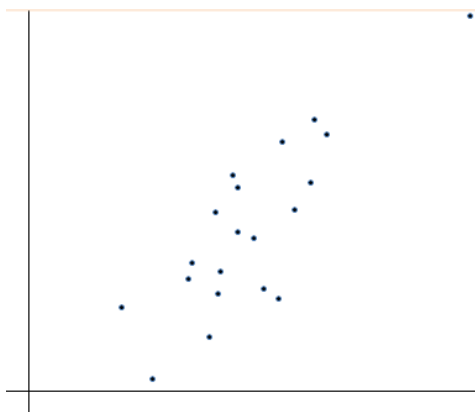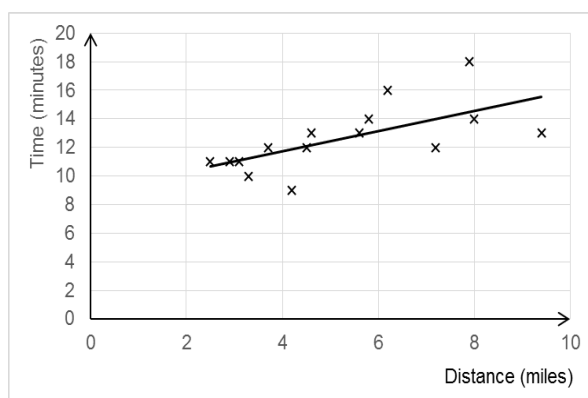## Section 3: Bivariate data

Exercise level 2

1. A scatter diagram is shown below.

    If data for the point in the top right hand corner of the diagram was removed from the data set, would this make the correlation stronger, weaker or would it remain the same? Justify your answer.

2. The scatter diagram below shows the distance travelled in miles and the time taken for a random selection of car journeys.

    (i)   The equation of the line of best fit is $y = 0.7x + 9$.
          (A) What information does the coefficient 0.7 in the equation give about car journeys?
          (B) What information does the number 9 in the equation give about car journeys?

    (ii) Use the equation to estimate the time taken for a car journey of
          (A) 0.5 miles,
          (B) 10 miles,
          (C) 200 miles.

    (iii) For each of the answers in part (ii), decide whether it is likely to be a good estimate. Justify your answer.