

Show all working – <u>NO</u> calculator required.

- 1. a) Calculate the gradients of the lines AB and CD shown below.
 b) Calculate the equation of the line AB.
- **2.** a) A line passes through the points A(-2, -4) and B(8, 1). Find the equation of the line AB. (2)
 - **b**) Find the equation of the straight line joining the points P(-4, 1) and Q(2, -3). (3)
- 3. Find the equation of the line passing through P(4, 6) which is parallel to the line with equation 4x 2y + 6 = 0
- **4.** A straight line has equation 3y 2x = 6. Find the gradient and y-intercept of the line.
- 5. A health visitor measured the fitness level of a group of teenagers and recorded B the number of hours they watched television in a weekShe then drew this graph and the line of best fit.
 - a) Find the equation of the line of best fit drawn.
 - **b)** Use the equation to calculate the fitness level of a teenager who watches 3.5 hours of TV.



Α

Total Marks: 20

(4)

(3)