Marked example 2

Paper 1 style · No calculator

2 4 marks SL 4.4 · 4.10 ●●○ Typical

For a set of bivariate data, the regression line of y on x is $y = 0.8x + 4$ and $\bar{x} = 15$.

(a) Find $\bar{y}$. **[2]**

(b) Explain why this line should not be used to estimate x when $y = 20$. **[2]**

MARKSCHEME (a)

the line passes through $(\bar{x}, \bar{y})$ **(M1)**

$\bar{y} = 0.8 \times 15 + 4 = 16$ **A1**

Total 2 marks

MARKSCHEME (b)

to estimate x from y **R1**

use the regression line of x on y **R1**

Total 2 marks

Note Not the line of y on x rearranged.

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