

1. (a) Use of $\bar{x} = \frac{\sum_{i=1}^4 x_i}{n}$ (M1)

$$\bar{x} = \frac{(k-2)+k+(k+1)+(k+4)}{4} \quad (\text{A1})$$

$$\bar{x} = \frac{4k+3}{4} \quad \left(= k + \frac{3}{4} \right) \quad \text{A1} \quad \text{N3}$$

(b) Either attempting to find the new mean or subtracting 3 from **their** \bar{x} (M1)

$$\bar{x} = \frac{4k+3}{4} - 3 \quad \left(= \frac{4k-9}{4}, k - \frac{9}{4} \right) \quad \text{A1} \quad \text{N2}$$

[5]