
R29...Compound measures - Population Density

OCR

- 18** A village has a population of 4200 and a population density of 700 people per km^2 .
An estate is built next to the village.
The estate has an area of 2 km^2 and a population density of 800 people per km^2 .

Work out the population density for the village and the estate together.

..... people per km^2 **[4]**

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village

$$\begin{array}{l} 700 \text{ people} = 1 \text{ km}^2 \\ 4200 \text{ people} = 6 \text{ km}^2 \end{array} \quad \left. \begin{array}{l} \swarrow \times 6 \\ \searrow \times 6 \end{array} \right\}$$

estate

$$\begin{array}{l} 800 \text{ people} = 1 \text{ km}^2 \\ 1600 \text{ people} = 2 \text{ km}^2 \end{array}$$

Total

$$\begin{array}{l} 5800 \text{ people} = 8 \text{ km}^2 \\ 725 \text{ people} = 1 \text{ km}^2 \end{array} \quad \left. \begin{array}{l} \swarrow \div 8 \\ \searrow \div 8 \end{array} \right\}$$

.....725..... people per km^2 [4]

Edexcel

AQA

22 The table shows information about the UK and Germany.

R29

	Population	Area (square miles)
UK	64 000 000	95 000
Germany	82 000 000	140 000

$$\text{Population density} = \frac{\text{population}}{\text{area}}$$

Compare the population densities of the UK and Germany.

[3 marks]

The table shows information about the UK and Germany.

Video created by W Neill

R29

	Population	Area (square miles)
UK	64 000 000	95 000
Germany	82 000 000	140 000

$$\text{Population density} = \frac{\text{population}}{\text{area}}$$

There are more people per sq mile in UK than Germany

Compare the population densities of the UK and Germany.

[3 marks]

$$\text{UK ... } \frac{64\,000\,000}{95\,000} = 673.68 \text{ people/sq mile}$$

$$\text{Germany } \frac{82\,000\,000}{140\,000} = 585 \text{ people/sq mile}$$