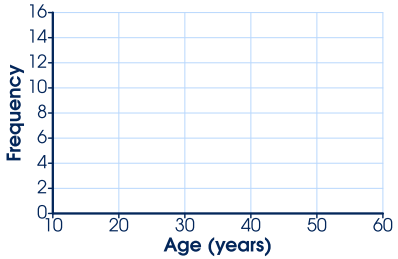
GCSE FOUNDATION · REVISION MAT 5

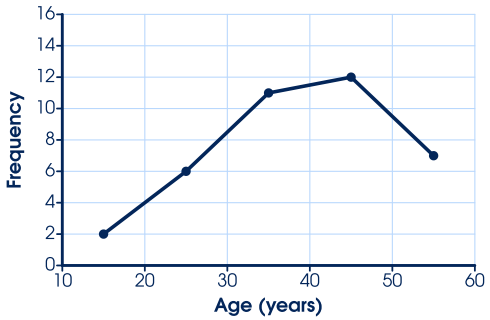
Frequency polygons

1 Draw a frequency polygon for this data.

Group	Frequency
$10 \leq x < 20$	7
$20 \leq x < 30$	13
$30 \leq x < 40$	9
$40 \leq x < 50$	6
$50 \leq x < 60$	3



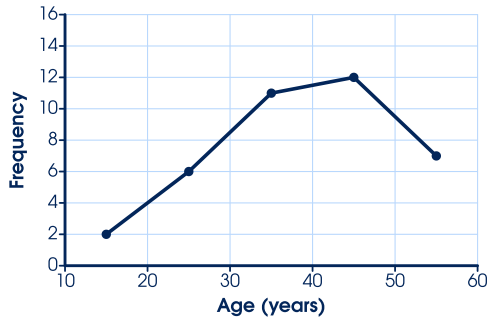
2 The frequency polygon shows some data.



Write down the modal class.

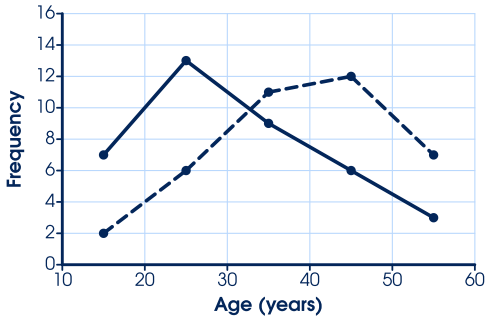
3 Explain why the points of a frequency polygon are plotted at the midpoints of the groups.

4 The frequency polygon shows some data.



Show that the total frequency is 38.

5 The frequency polygons compare two groups, A (solid) and B (dashed).



Compare the two groups.

6 The table shows some data.

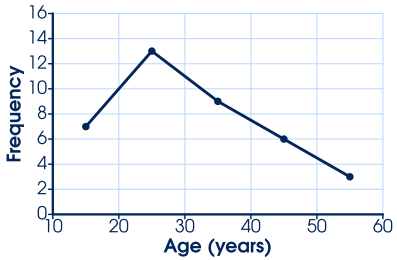
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Work out an estimate for the mean.

ANSWERS · REVISION MAT 5

Frequency polygons

1



Plot at the midpoints and join with straight lines.

2 The highest point is at 45.

Modal class: **$40 \leq x < 50$**

3 We do not know the exact values in each group.

The midpoint is used to represent all the values in that group.

4 2 + 6 + 11 + 12 + 7 = **38** ✓

5 Estimated means: A ≈ 31.1, B ≈ 39.2

Group **B** tends to have higher values.

6 Midpoints × frequency:

15×7 + 25×13 + 35×9 + 45×6 + 55×3

= 1180

1180 ÷ 38 = **31.05**