Frequency Polygons

Foundation / Higher | Written solutions

PLOTTING AT CLASS MIDPOINTS

Question 1



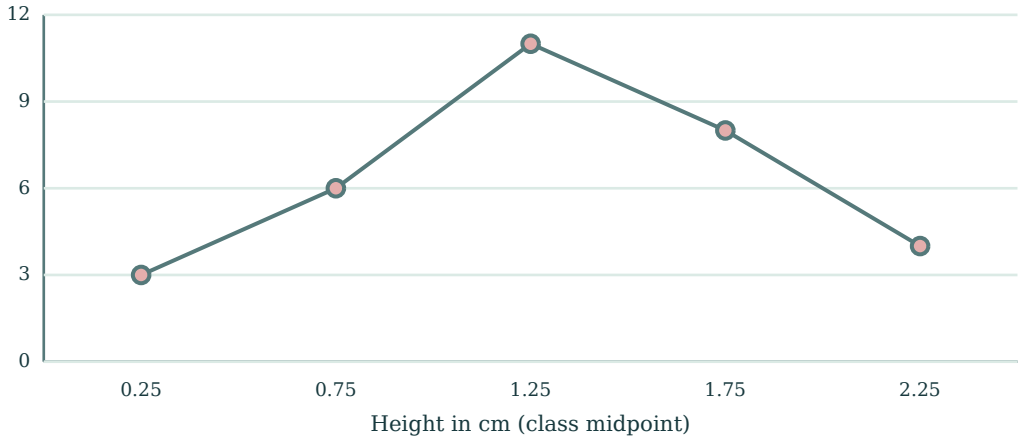
Use the class midpoints: (0 + 10)/2 = 5, then 15, 25, 35 and 45. Plot (5,4), (15,8), (25,12), (35,10), (45,6) and join neighbouring points with straight lines.

Question 2



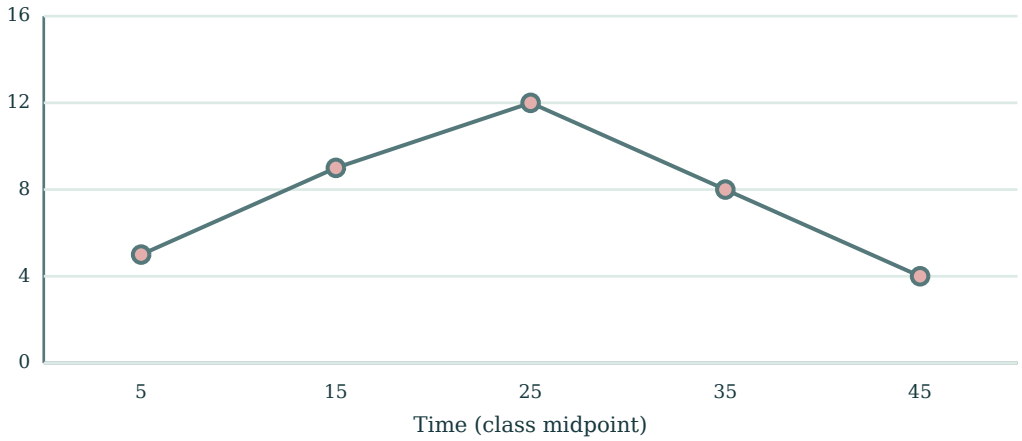
The midpoints are 2.5, 7.5, 12.5, 17.5 and 22.5. Plot (2.5,7), (7.5,11), (12.5,12), (17.5,9), (22.5,5), then join consecutive points.

Question 3



Each class width is 0.5 cm, so the midpoints are 0.25, 0.75, 1.25, 1.75 and 2.25. Plot (0.25,3), (0.75,6), (1.25,11), (1.75,8), (2.25,4) and join in order.

Question 4



Mistake 1: the student plotted the class upper limits (10, 20, 30, 40, 50), instead of the midpoints (5, 15, 25, 35, 45).

Mistake 2: the student joined the final point back to the first, closing the shape. A frequency polygon here connects consecutive classes only.