Guide to:
Frequency polygons

maths Links

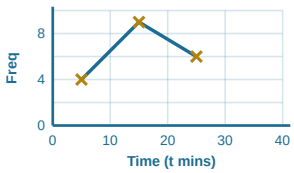
Explanation:

To draw a **frequency polygon** from a grouped frequency table, first find the **midpoint** of each class interval by averaging its endpoints: Midpoint = (lower + upper) ÷ 2. Plot each point at (midpoint, frequency).

Join adjacent points in order from left to right using a **ruler and straight lines** (never a smooth curve). **Do NOT** join the last point back to the first point, and do not join the ends down to (0, 0).

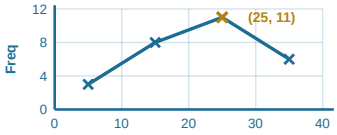
Example 1: Plot a frequency polygon for this table.

Time (t)	f	Mid	Plot
$0 < t \leq 10$	4	5	**(5,4)**
$10 < t \leq 20$	9	15	**(15,9)**
$20 < t \leq 30$	6	25	**(25,6)**



Plot midpoints **(5, 4)**, **(15, 9)**, **(25, 6)** and join with straight lines.

Example 2: This frequency polygon for 0–10, 10–20, 20–30, 30–40 has vertices (5, 3), (15, 8), (25, 11), (35, 6). Find total frequency & modal class.



• **Total:** 3 + 8 + 11 + 6 = **28**; **Modal class: 20 < *t* ≤ 30** (peak 11)

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