

Estimating mean from a table

worked example

This table shows estimates of noon temps.

temp ($^{\circ}\text{C}$)	no. of days	M.P	F $\times$ M.P
$10 \leq t < 15$	5	12.5	62.5
$15 \leq t < 20$	7	17.5	122.5
$20 \leq t < 25$	23	22.5	517.5
$25 \leq t < 30$	48	27.5	1320
$30 \leq t < 35$	7	32.5	227.5
$35 \leq t < 40$	2	37.5	75
	$\Sigma = 92$		$\Sigma = 2325$

work out an estimate for the mean noon temp.
Give your answer to 3 significant figures.

Step 1: add a midpoint column (highlighted above) and work out the midpoints.

Step 2: add a frequency $\times$ midpoint column (highlighted above)

After this you can cross out the 1st and 3rd columns, as they're no longer needed.

Step 3: work out the totals of the remaining columns (also highlighted above)

Step 4: Finally to find out the estimate for the mean, divide the F $\times$ M.P total by the frequency column total

$$2325 \div 92 = 25.3^{\circ}\text{C}$$

answer to 3 sig fig = 25.3°C