Solutions

2.1

- Mean $= 900/30 = 30.0$.
- Median $= (28.4 + 28.8)/2 = 28.6$.
- sd $= \sqrt{512/29} = \sqrt{17.66} = 4.20$.
- IQR $= 33.0 - 24.0 = 9.0$.

2.2

- Fences: $24.0 - 13.5 = 10.5$ and $33.0 + 13.5 = 46.5$.
- $41.2 < 46.5 \rightarrow$ not an outlier by the rule (high, but inside).

2.3

- Defensible: report with the cause noted; report with and without it; keep it (it is real demand).
- Each option documented in the analysis.
- NOT defensible: silent deletion – the fence is a detector, not a verdict. (stated across the marks)

2.4

- Truncation multiplies visual differences with true numbers.
- Fixes: axis from zero, or a clearly marked broken axis.

2.5

- Mean > median signals right skew: a slow tail pulls the mean up.
- The advert should quote the median (the typical experience).
- Caveat: say which average is quoted – the mean is honest too, for workload planning, not for promises.