| 6 | (a) | Population because all the available data are used | E1 | 2.4 | This is an 'explain' question, so we do need 'population' and a correct justification. Accept 'population as it is data from every single day the phone was used' scores 'Population as it is every day the phone is used' scores |
|---|------------|--|------------|-----|---|
| | | | [1] | | |
| 6 | (b) | Negative skew | B 1 | 1.2 | 'Negative' is B0 |
| | | | [1] | | |

| | Question | Answer | Marks | AO | Guidance |
|---|----------|--|--------------|--------------|---|
| 6 | (c) | $Q_3 = 58 \text{ or } Q_1 = 42 \text{ identified}$ | B1 | 1.1 | |
| | | IQR = 16 | B1 | 1.1 | 'IQR = 16' implies B1B1 |
| | | | [2] | | |
| 6 | (d) | $42 - 1.5 \times 16 = 18$ | M1 FT (c) | 1.1 a | Ignore checking of upper tail For calculating $Q_1 - 1.5 \times IQR$ for their values |
| | | Smallest value is 19 which is not an outlier, so no outliers in lower tail | A1 | 1.1 | Comparison of lower bound with 19 and conclusion e.g. ' $18 < 19$ or $19 > 18$ (or equivalent in words) so no' etc |
| | | | | | If they calculate 18 then and mention 19 and 'no' then A1 |
| | | | | | "18 so no as all values > 18" is A1 |
| | | | | | '18 so no as all values more than 18' is A1 |
| | | | | | '18 so no etc' is A0 as they need to compare to smallest value (directly or indirectly) and explain why. |
| | | | | | Command word 'determine'- justification needed |
| | | | [2] | | |