Year 8 Statistics – Foundation

ANSWER KEY HappyKids.fit

Answers and worked solutions · 10 questions

A. Data skills

1. median 46, range 34

There are 13 values, already in order
median: 46; range: 34

2. range 45, mode 36

There are 12 values, already in order
range: 45; mode: 36

3. median 38, range 41

There are 15 values, already in order
median: 38; range: 41

4. 102°

Each student is 360 ÷ 120 = 3°
34 × 3 = 102°

5. 7 people

70 ÷ 360 = 7/36 of the people
7/36 × 36 = 7

6. 36°

Each student is 360 ÷ 60 = 6°
6 × 6 = 36°

7. mean 2.8, median 3, mode 4

Total = 1 × 7 + 2 × 5 + 3 × 1 + 4 × 10 + 5 × 2 = 70; mean = 70 ÷ 25 = 2.8
Median: the 12th and 13th values; mode: the highest frequency

8. mean 2.1, median 1, mode 1

Total = 1 × 12 + 2 × 2 + 3 × 1 + 4 × 2 + 5 × 3 = 42; mean = 42 ÷ 20 = 2.1
Median: the 10th and 11th values; mode: the highest frequency

9. mean 4.425, median 4, mode 4

Total = 2 × 2 + 3 × 8 + 4 × 11 + 5 × 9 + 6 × 10 = 177; mean = 177 ÷ 40 = 4.425
Median: the 20th and 21th values; mode: the highest frequency

10. Mar and Apr (by 15 hundred); the overall trend is roughly level

Changes: Jan–Feb −5, Feb–Mar −10, Mar–Apr +15, Apr–May −10, May–Jun +5
Largest rise: Mar to Apr
From 30 to 25: roughly level