

**AVERAGES & RANGE: MEAN, MEDIAN, MODE****Best Guess Mastery Worksheet (Target Grade 4/5)****I Do**

Here is a list of the number of runs scored by a cricket player in seven matches:

**1 4    2 8    1 4    8    3 5    1 2    2 2**

(a) Write down the mode.

(b) Work out the range.

**We Do**

Here is a list of the number of goals scored by Katie in seven netball matches:

**1 0    1 8    1 0    5    2 5    9    2 1**

(a) Write down the mode.

(b) Work out the median.

(c) Work out the mean.

(d) Work out the range.

**AVERAGES & RANGE: MEAN, MEDIAN, MODE****Best Guess Mastery Worksheet (Target Grade 4/5)****You Do 1**

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Here is a list of the points scored by John in seven basketball games:

**1 2    1 5    3 6    8    2 4    1 5    3 0**

- (a) Write down the mode.
- (b) Work out the median.
- (c) Work out the mean.
- (d) Work out the range.

**You Do 2**

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Here is a list of the number of laps swam by Emily in seven training sessions:

**2 8    3 7    2 0    2 5    3 2    2 8    4 0**

- (a) Write down the mode.
- (b) Work out the median.
- (c) Work out the mean.
- (d) Work out the range.

**AVERAGES & RANGE: MEAN, MEDIAN, MODE****Best Guess Mastery Worksheet (Target Grade 4/5)****Challenge 1**

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Paul plays 6 games of bowling.

The scores in his first 5 games are: **12 25 12 16 20**

His mean score across all 6 games is 18.

- (a) Work out Paul's score in the 6th game.
- (b) Work out the median of his 6 scores.
- (c) Work out the range of his 6 scores.

**Challenge 2**

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Anna takes 5 maths tests.

Her five test scores have:

- A mode of 15
- A median of 18
- A range of 12
- A mean of 19

Work out Anna's 5 test scores.

**AVERAGES & RANGE: MEAN, MEDIAN, MODE****Best Guess Mastery Worksheet (Target Grade 4/5)****Practice Perfect (1)**

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Paige records the noon temperature (in °C) over 7 days:

**11    14    11    9    15    18    13**

- (a) Work out the mean temperature.
- (b) Find the mode, median, and range.

**Practice Perfect (2)**

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Mark has 6 cards, each with a number on it.

The numbers are: **7   12   7   14   9   x**

The mean of the numbers is 10.

- (a) Work out the value of  $x$ .
- (b) Using your value for  $x$ , find the median and range of the 6 cards.

## **Answers & Worked Solutions**

### **I Do:**

Sorted Data: 8, 12, 14, 14, 22, 28, 35.

(a) Mode = **14** (appears most often)

(b) Range =  $35 - 8 = 27$

### **We Do:**

Sorted Data: 5, 9, 10, 10, 18, 21, 25.

(a) Mode = **10**

(b) Median = **10**

(c) Mean =  $98 \div 7 = 14$

(d) Range =  $25 - 5 = 20$

### **You Do 1:**

Sorted Data: 8, 12, 15, 15, 24, 30, 36.

(a) Mode = **15**

(b) Median = **15**

(c) Mean =  $140 \div 7 = 20$

(d) Range =  $36 - 8 = 28$

### **You Do 2:**

Sorted Data: 20, 25, 28, 28, 32, 37, 40.

(a) Mode = **28**

(b) Median = **28**

(c) Mean =  $210 \div 7 = 30$

(d) Range =  $40 - 20 = 20$

### **Challenge 1:**

Total sum of 6 games =  $6 \times 18 = 108$ .

Sum of first 5 games =  $12 + 25 + 12 + 16 + 20 = 85$ .

(a) 6th game score =  $108 - 85 = 23$ .

Sorted 6 scores: 12, 12, 16, 20, 23, 25.

(b) Median =  $(16 + 20) \div 2 = 18$ .

(c) Range =  $25 - 12 = 13$ .

**Challenge 2:**

Let scores in ascending order be a, b, c, d, e.

Median is 18  $\rightarrow c = 18$ .

Mode is 15  $\rightarrow a = 15, b = 15$ .

Range is 12  $\rightarrow e - 15 = 12 \rightarrow e = 27$ .

Mean is 19  $\rightarrow$  Total sum  $= 5 \times 19 = 95$ .

Current sum  $= 15 + 15 + 18 + 27 = 75$ .

$d = 95 - 75 = 20$ .

The 5 scores are: **15, 15, 18, 20, 27**.

**Practice Perfect (1):**

Sorted Data: 9, 11, 11, 13, 14, 15, 18.

(a) Mean  $= 91 \div 7 = \mathbf{13}$

(b) Mode = **11**. Median = **13**. Range  $= 18 - 9 = \mathbf{9}$ .

**Practice Perfect (2):**

Total sum of 6 cards  $= 6 \times 10 = 60$ .

Sum of 5 known cards  $= 7 + 12 + 7 + 14 + 9 = 49$ .

(a)  $x = 60 - 49 = \mathbf{11}$ .

Sorted 6 cards: 7, 7, 9, 11, 12, 14.

(b) Median  $= (9 + 11) \div 2 = \mathbf{10}$ . Range  $= 14 - 7 = \mathbf{7}$ .