GCSE FOUNDATION · REVISION MAT 3

Estimation

1 By rounding each number to 1 significant figure, estimate the value of

0.48×79.6

2 Estimate the value of

$$\frac{79.4 + 21.3}{4.92}$$

3 Vic estimates 8.3×2.2 as $8 \times 2 = 16$

Will the exact answer be bigger or smaller than 16? Explain your answer.

4 Show that 0.52×196 is approximately 100.

5 Petrol costs £1.39 per litre.

Lucy fills her car with 41.6 litres. She has £60.

Use estimation to decide whether she has enough money.

6 421 students are going on a trip.

Each coach has 38 seats.

(a) Estimate the number of coaches needed.

(b) How many coaches are actually needed? Explain why your estimate might not be enough.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Estimation

1 $0.5 \times 80 = \mathbf{40}$

2 $\frac{80 + 20}{5} = \mathbf{20}$

3 **Bigger**. Both numbers were rounded down.

(Exact: 18.26)

4 $0.5 \times 200 = 100$ ✓

5 $1.4 \times 40 = 56$

Estimate £56, so **yes**.

(Exact: £57.82)

6 (a) $400 \div 40 = 10 \rightarrow$ about **10**

(b) $421 \div 38 = 11.1$, so **12** coaches.

Rounding can hide students left over.

Mr&Mrs MATHS