GCSE HIGHER · REVISION MAT 4

Rounding and error intervals

1 Round 0.8462 to 1 decimal place.

2 Round 2.0951 to 3 significant figures.

3 A number is 70 to the nearest 10.

Write down its error interval.

4 Estimate the value of

$$\frac{6.1^2 \times 19.7}{3.95}$$

5 Ed says 3.45 rounded to 1 significant figure is 4.

Is Ed correct?

6 A population is 84 000 to 2 significant figures.

Find the smallest and largest possible populations.

7 A road is 1200 m long, to the nearest 100 m.

Show that it could be 1249 m.

8 $p = 7$ and $q = 3$, both to the nearest whole number.

Find the error interval for $p - q$.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 4

Rounding and error intervals

1 0.8

2 2.10

3 $65 \leq x < 75$

4 $\frac{36 \times 20}{4}$

≈ 180

5 No: 3.45 rounds to 3 (look only at the 4).

6 $83\,500 \leq P < 84\,500$

83 500 and 84 499

7 $1150 \leq L < 1250$, and 1249 lies in this interval.

8 Lower: 6.5 – 3.5 = 3

Upper: 7.5 – 2.5 = 5

$3 \leq p - q < 5$

Mr&Mrs MATHS