GCSE HIGHER · REVISION MAT 3

Rounding and error intervals

1 Round 5.996 to 2 decimal places.

2 Round 345 678 to 1 significant figure.

3 A mass is 2.4 kg to 1 decimal place.

Write down its error interval.

4 Estimate the cost of 39 tickets at £19.95 each.

Is your estimate too big or too small?

5 Explain why 0.0503 has 3 significant figures.

6 A time is 9.8 s, truncated to 1 decimal place.

Write down its error interval.

7 A square has side 6 cm to the nearest cm.

Show that its area is less than 42.25 cm^2.

8 x is 4.7 to 2 s.f.

x is 4.6 when truncated to 1 d.p.

Find the error interval for x.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Rounding and error intervals

1 6.00

2 300 000

3 $2.35 \leq m < 2.45$

4 40 × 20

£800, an overestimate (both rounded up)

5 Leading zeros do not count; 5, 0 and 3 do.

6 $9.8 \leq t < 9.9$

7 Side < 6.5 cm

Area $< 6.5^2 = 42.25$ cm²

8 $4.65 \leq x < 4.75$ and $4.6 \leq x < 4.7$

$4.65 \leq x < 4.7$

Mr&Mrs MATHS