GCSE HIGHER · REVISION MAT 2

Rounding and error intervals

1 Round 76 482 to 3 significant figures.

2 Round 0.07065 to 3 significant figures.

3 A length is 8 cm to the nearest cm.

Write down its error interval.

4 Estimate the value of

$$\sqrt{63.8} \times 4.92$$

5 Mia says the error interval for 450 to the nearest 10 is

$$445 \leq x \leq 455$$

What is wrong?

6 A number truncated to 2 decimal places is 4.37.

Write down its error interval.

7 A lift can carry 600 kg.

8 people each weigh 75 kg, to the nearest kg.

Could the lift be overloaded? Show working.

8 $x = 2.4$ and $y = 1.3$, both to 1 d.p.

Find the error interval for $x + y$.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 2

Rounding and error intervals

1 76 500

2 0.0707

3 $7.5 \leq L < 8.5$

4 $\sqrt{64} \times 5$

≈ 40

5 455 would round to 460, so it should be $x < 455$.

6 $4.37 \leq x < 4.38$

7 Upper bound: 75.5 × 8 = 604 kg

Yes, it could be over 600 kg.

8 Lower: 2.35 + 1.25

Upper: 2.45 + 1.35

$3.6 \leq x + y < 3.8$

Mr&Mrs MATHS