Multiple choice questions - Units, estimation, rounding and bounds

Year: Year 10 · 10

Question 1 3.2 km in metres is

- ◯ **A.** 32
- ◯ **B.** 320
- ◯ **C.** 3200
- ◯ **D.** 32 000

Question 2 4.572 to 2 decimal places is

- ◯ **A.** 4.57
- ◯ **B.** 4.58
- ◯ **C.** 4.5
- ◯ **D.** 4.6

Question 3 0.07396 to 2 significant figures is

- ◯ **A.** 0.07
- ◯ **B.** 0.074
- ◯ **C.** 0.073
- ◯ **D.** 0.0740

Question 4 A number 6 rounded to the nearest integer has error interval

- ◯ **A.** $5 \leq x < 7$
- ◯ **B.** $5.5 \leq x < 6.5$
- ◯ **C.** $5.5 \leq x \leq 6.5$
- ◯ **D.** $5.9 \leq x < 6.1$

Question 5 1 m^2 equals

- ◯ **A.** 100 cm^2
- ◯ **B.** 1000 cm^2
- ◯ **C.** 10 000 cm^2
- ◯ **D.** 100 000 cm^2

Question 6 2500 rounded to 1 significant figure is

- ◯ **A.** 2000
- ◯ **B.** 2500
- ◯ **C.** 3000

- ◯ **D.** 2600

Question 7 Which gives a good estimate of $\frac{4.8 \times 6.1}{0.9}$?

- ◯ **A.** 30
- ◯ **B.** 24
- ◯ **C.** 60
- ◯ **D.** 6

Question 8 (Higher) $x = 2.4$ to 1 d.p. The lower bound of x is

- ◯ **A.** 2.30
- ◯ **B.** 2.35
- ◯ **C.** 2.40
- ◯ **D.** 2.45

Question 9 (Higher) A length is 15 cm to the nearest cm. The upper bound is

- ◯ **A.** 15.1 cm
- ◯ **B.** 15.4 cm
- ◯ **C.** 15.5 cm
- ◯ **D.** 16 cm

Question 10 (Higher) $a = 4$ and $b = 5$, both to the nearest integer. The smallest possible value of ab is

- ◯ **A.** 15.75
- ◯ **B.** 20
- ◯ **C.** 12
- ◯ **D.** 15

Answer grid - Units, estimation, rounding and bounds

Year: Year 10

Question	Answer	Explanation
1	**C**	$\times 1000$.
2	**A**	The third decimal digit is 2, so round down.
3	**B**	The first two significant figures are 7 and 3. The next digit is 9, so round up to 0.074.
4	**B**	Half a unit either side, upper bound not included.
5	**C**	100×100.
6	**C**	The next digit is 5, so round up.
7	**A**	$\frac{5 \times 6}{1} = 30$.
8	**B**	$2.4 - 0.05$.
9	**C**	$15 + 0.5$.
10	**A**	$3.5 \times 4.5 = 15.75$.