

Estimation

ANSWERS

1

Estimate the value. Round each number to 1 significant figure first.

$$\begin{array}{c} 6.8 \times 31.2 \\ \downarrow \quad \downarrow \\ 7 \times 30 \end{array}$$

$$= 210$$

Answer 210

2

Estimate the value. Round each number to 1 significant figure first.

$$\begin{array}{c} 4.92 \times 18.7 \\ \downarrow \quad \downarrow \\ 5 \times 20 \end{array}$$

$$= 100$$

Answer 100

3

Estimate the value. Round each number to 1 significant figure first.

$$\begin{array}{c} 59.2 \times 3.84 \\ \downarrow \quad \downarrow \\ 60 \times 4 \end{array}$$

$$= 240$$

Answer 240

4

Estimate the value. Round each number to 1 significant figure first.

$$\begin{array}{c} 812 \div 39 \\ \downarrow \quad \downarrow \\ 800 \div 40 \end{array}$$

$$= 20$$

Answer 20

5

Estimate the value. Round each number to 1 significant figure first.

$$\begin{array}{c} (28.7 + 11.6) \div 4.1 \\ \downarrow \quad \downarrow \quad \downarrow \\ (30 + 10) \div 4 \end{array}$$

$$= 10$$

Answer 10

6

Estimate the value. Round each number to 1 significant figure first.

$$\begin{array}{c} 0.513 \times 3970 \\ \downarrow \quad \downarrow \\ 0.5 \times 4000 \end{array}$$

$$= 2000$$

Answer 2000

7

Tickets cost £19.80 each.
Estimate the cost of 31 tickets.

$$20 \times 30$$

Answer £600

8

Ben works out 48×21 and gets 10 080.
Use estimation to show he must be wrong.

$$50 \times 20$$

Answer about 1000

Estimation further practice

ANSWERS

9

Estimate the value.
Round each number to 1 significant figure first.

$$7.84 \times 41.3$$

$$8 \times 40$$

Answer 320

10

Estimate the value of

$$\frac{41.7 \times 5.8}{2.96}$$

$$\frac{40 \times 6}{3} = \frac{240}{3}$$

Answer 80

11

Estimate the value of

$$3.9^2 \times 52.1$$

$$4^2 \times 50 = 16 \times 50$$

Answer 800

12

A box of 48 pens costs £19.20.
Estimate the cost of one pen.

$$£20 \div 50 = £0.40$$

Answer 40p

13

Apples cost £2.10 per kg and pears cost £1.95 per kg. Zara buys 3.8 kg of apples and 4.9 kg of pears.
Estimate the total cost.

$$4 \times 2 + 5 \times 2$$

Answer £18

14

Match each calculation to its estimate: 0.3, 3, 300

calculation estimate

A 9.8×0.31 3

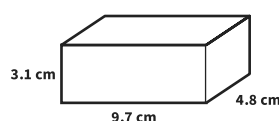
B 98×3.1 300

C 0.98×0.31 0.3

$$10 \times 0.3, 100 \times 3, 1 \times 0.3$$

15

Estimate the volume of this cuboid.



$$5 \times 3 \times 10$$

Answer 150 cm³

16

Kim estimates 3.7×5.8 as $4 \times 6 = 24$.
Is the exact answer bigger or smaller than 24? Explain how you know without working it out.

$$3.7 \text{ and } 5.8 \text{ were both rounded up}$$

Answer Smaller