

Multiplying & Dividing by 10, 100 and 1,000

Read each problem carefully. Decide whether you need to multiply or divide by 10, 100 or 1,000, then choose the correct answer.

1. A bookshop receives 10 boxes of notebooks. Each box contains 47 notebooks. How many notebooks does the bookshop receive altogether?

- A. 4.7
- B. 470
- C. 4,700
- D. 57

2. A factory produces 6,300 toy cars and packs them equally into 100 boxes. How many toy cars are placed in each box?

- A. 630
- B. 6.3
- C. 63
- D. 6,200

3. One ticket to a theme park costs £36.50. A school buys 10 tickets. How much do the tickets cost altogether?

- A. £365
- B. £3.65
- C. £3,650
- D. £46.50

4. A charity has collected £8,000 and shares the money equally between 1,000 families. How much does each family receive?

- A. £80
- B. £800
- C. £8,000,000
- D. £8

5. A machine fills 100 bottles, putting 1.25 litres of juice into each bottle. How many litres of juice are needed altogether?

- A. 12.5 litres
- B. 125 litres
- C. 1,250 litres
- D. 0.125 litres

6. A farmer has harvested 45,000 strawberries. He divides them equally between 1,000 containers. How many strawberries are placed in each container?

- A. 450
- B. 4.5
- C. 45
- D. 45,000,000

7. A small packet contains 2.7 grams of beads. A craft shop orders 1,000 packets. What is the total mass of the beads?

- A. 2,700 g
- B. 270 g
- C. 27 g
- D. 0.0027 g

8. A school has £3,250 to spend equally between 10 classes. How much money can each class spend?

- A. £32.50
- B. £3,240
- C. £32,500
- D. £325

9. A printing company uses 0.48 litres of ink for one large order. If it completes 100 identical orders, how many litres of ink will it use?

- A. 4.8 litres
- B. 48 litres
- C. 480 litres
- D. 0.0048 litres

10. During a sponsored challenge, 12,500 metres are divided into 100 equal sections. How long is each section?

- A. 125 metres
- B. 1,250 metres
- C. 12.5 metres
- D. 1.25 metres

Answers

When multiplying or dividing by 10, 100 or 1,000, think carefully about how the place value of each digit changes.

1. $47 \times 10 = 470$ — Answer: B

The bookshop has 10 boxes with 47 notebooks in each, so we multiply 47 by 10. Each digit becomes worth 10 times as much, giving 470 notebooks.

2. $6,300 \div 100 = 63$ — Answer: C

The 6,300 cars are shared equally between 100 boxes, so we divide by 100. Each digit becomes worth one hundredth as much, giving 63 cars per box.

3. $\pounds 36.50 \times 10 = \pounds 365$ — Answer: A

There are 10 tickets costing $\pounds 36.50$ each, so we multiply by 10. This gives a total cost of $\pounds 365$.

4. $\pounds 8,000 \div 1,000 = \pounds 8$ — Answer: D

The money is shared equally between 1,000 families, so we divide 8,000 by 1,000. Each family receives $\pounds 8$.

5. $1.25 \times 100 = 125$ — Answer: B

There are 100 bottles containing 1.25 litres each, so we multiply 1.25 by 100. Altogether, the machine needs 125 litres.

6. $45,000 \div 1,000 = 45$ — Answer: C

The strawberries are divided equally between 1,000 containers, so we calculate $45,000 \div 1,000$. Each container holds 45 strawberries.

7. $2.7 \times 1,000 = 2,700$ — Answer: A

There are 1,000 packets containing 2.7 grams each, so we multiply 2.7 by 1,000. The total mass is 2,700 g.

8. $\pounds 3,250 \div 10 = \pounds 325$ — Answer: D

The money is divided equally between 10 classes, so we calculate $3,250 \div 10$. Each class can spend $\pounds 325$.

9. $0.48 \times 100 = 48$ — Answer: B

The company completes 100 orders using 0.48 litres for each one, so we multiply 0.48 by 100. It uses 48 litres altogether.

10. $12,500 \div 100 = 125$ — Answer: A

The 12,500 metres are divided into 100 equal sections, so we calculate $12,500 \div 100$. Each section is 125 metres long.

Remember

- **Multiply when you have several equal groups and need to find the total.**
Divide when a total is being shared or split into equal groups.
- **When multiplying by 10, 100 or 1,000, the digits move 1, 2 or 3 places to the left in the place-value chart.**
- **When dividing, they move 1, 2 or 3 places to the right.**