

Boost Free Lessons - Year 5 Maths

Lesson 7: Multiplying and Dividing by 10, 100 and 1000

Name: _____ Grade: _____ Date: _____

Worked Example 1

Work out 46×100 .

1. Multiplying makes a number **bigger**, so the digits move up into larger columns.
2. Multiplying by 100 makes it 100 times bigger, so each digit hops **2 places to the left**.
3. The 4 hops from tens to thousands, and the 6 hops from ones to hundreds.
4. The tens and ones columns are now empty, so we fill them with zeros: 4 600.

$$46 \times 100 = 4\,600$$

Worked Example 2

Work out $3\,200 \div 100$.

1. Dividing makes a number **smaller**, so the digits move down into smaller columns.
2. Dividing by 100 makes it 100 times smaller, so each digit hops **2 places to the right**.
3. The 3 hops from thousands to tens, and the 2 hops from hundreds to ones.
4. That leaves 32. The two zeros are no longer needed, because there is nothing left in those columns.

$$3\,200 \div 100 = 32$$

Remember: **Multiplying** makes a number bigger, so digits hop to the **left**. **Dividing** makes it smaller, so digits hop to the **right**. Zeros only fill columns that end up empty.



Question 1: Work out the following.

1. 58×10

2. 7×100

3. 24×1000

4. 630×10

5. $900 \div 10$

6. $4\,500 \div 100$

7. $62\,000 \div 1000$

8. $8\,200 \div 10$



Question 2: Answer the following.

1. Work out 3.6×10 .
2. Work out 0.45×100 .
3. Work out $27 \div 10$.
4. Work out $156 \div 100$.
5. How many 10s are there in 4 000?
6. Does multiplying by 100 always mean adding two zeros? Explain using 2.5×100 .



Question 3: Answer the following questions.

1. A box holds 100 paperclips. How many in 37 boxes?

2. 1 000 tickets are shared equally between 10 schools. How many each?

3. A shop orders 24 crates of 100 apples. How many apples?

4. 5 400 seeds are packed 100 to a packet. How many packets?

5. A tap fills 10 litres a minute. How many litres in 100 minutes?





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Answers: Multiplying and Dividing by 10, 100 and 1000

Question 1

1. 580
2. 700
3. 24 000
4. 6 300
5. 90
6. 45
7. 62
8. 820

Question 2

1. 36
2. 45
3. 2.7
4. 1.56
5. 400
6. No. $2.5 \times 100 = 250$, not 2.500. The digits still hop two places left, and zeros only fill columns that end up empty.

Question 3

1. 3 700 paperclips
2. 100 tickets each
3. 2 400 apples
4. 54 packets
5. 1 000 litres

