

Maths Star

Multiply & Divide Decimals by 10,100,1000

When a question asks you to multiply or divide a decimal by a multiple of 10, it is simply a case of moving the number left or right so that the decimal point appears in a different position.

When you multiply by 10, the number gets ten times bigger, “budging” the number one place further left (2 places when we multiply by 100, etc):

$$\begin{array}{r} \text{H T U . t h th} \\ 1 . 3 2 \\ 1 3 . 2 \quad \times 10 \end{array}$$

$$\begin{array}{r} \text{H T U . t h th} \\ 1 . 3 2 \\ 1 3 2 . 0 \quad \times 100 \end{array}$$

When dividing, it simply “budges” the number to the right instead, as the number gets smaller:

$$\begin{array}{r} \text{H T U . t h th} \\ 4 7 . 3 \\ 4 . 7 3 \quad \div 10 \end{array}$$

$$\begin{array}{r} \text{H T U . t h th} \\ 4 7 . 3 \\ 0 . 4 7 3 \quad \div 100 \end{array}$$

Try it yourself:

1) 2.7×10

2) 3.41×10

3) 72.4×10

4) 0.218×10

5) 5.8×100

6) 6.24×100

7) 89.1×100

8) 0.034×100

9) $7.3 \div 10$

10) $35.7 \div 10$

11) $4.22 \div 10$

12) $0.28 \div 10$

13) $9.1 \div 100$

14) $73.2 \div 100$

15) $1.25 \div 100$

16) $0.97 \div 100$