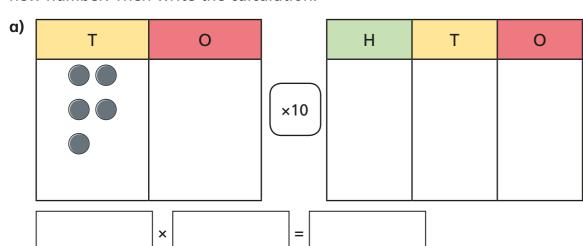
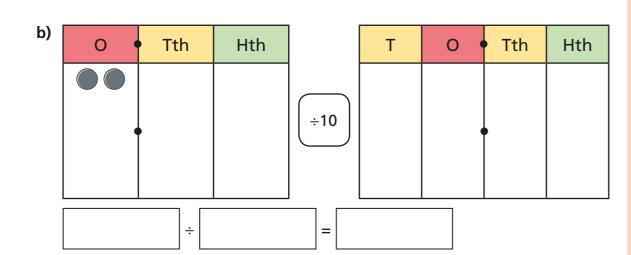


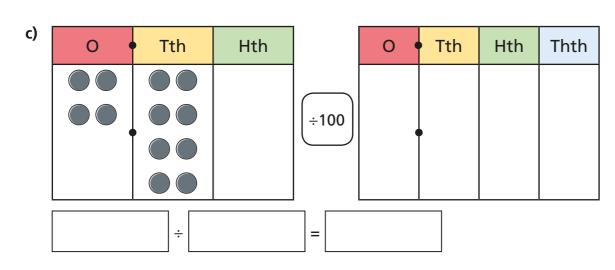
Multiply and divide by powers of 10

Draw counters in the place value charts on the right-hand side to show the new number. Then write the calculation.









The place value charts show Teddy's counters before and after completing a calculation.

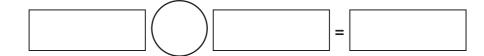
Before

Н	Т	0	Tth	Hth	Thth
		•			

After

Н	Т	0	Tth	Hth	Thth
		•			

What calculation has Teddy worked out?



How do you know?

- Discuss with a partner what happens to the digits when:
 - you multiply a number by 10
 - you divide a number by 100
 - you multiply a number by 1,000







Complete the calculations.

Use a place value chart to help you if you need it.

- a) $23 \times 10 =$
 - $23 \times 100 =$
 - $23 \times 1,000 =$
- **b)** 1.42 × 10 =
 - $1.42 \times 100 =$
 - $1,000 \times 1.42 =$
 - $10,000 \times 1.42 =$

- c) $490 \div 10 =$
 - 490 ÷ 100 =
 - $490 \div 1,000 =$
- **d)** 78 ÷ 10 =
 - $7.8 \div 10 =$
 - $0.78 \div 10 =$
 - $7.08 \div 10 =$

Complete the calculations.

- a) $56 \times 1,000 =$
- e) $3.043 \times 100 =$
- **b)** 0.48 ÷ 100 =
- f) $489,000 \div 10,000 =$
- c) $15.2 \div 1,000 =$
- **g)** 10,000 × 0.17 =
- d) $2.3 \times 1,000 \div 10 =$
- **h)** $100 \times 0.461 \div 1,000 =$

Fill in the missing numbers.

- **a)** 0.409 ÷ = 0.0409
- $\div 1,000 = 1,056$
- b) \times 100 = 24,040
- e) 42 ÷ 1,000 × = 4.2
- **c)** 1,000 × = 0.8



Solve the equations.

a) $\frac{x}{100} = 10.8$

c) 10k = 94.6

- **b)** 17.25h = 17,250
- d) $\frac{y}{1000} = 1.04$

Nijah answers this question.

 $0.4 \times 100 = \underline{0.400}$

What mistake has Nijah made?

a positive multiple of 50

100 times larger than A

C 10 times smaller than A

Are these statements always, sometimes or never true?

B is a multiple of 5 _____ B ÷ C is an integer ____

B < C _____

C ÷ B is an integer _____

B > C _____

B is 10 times smaller

than C _____