Dividing decimals by 10, 100 and 1,000

1 Complete the divisions.

a)

H	T	O	Tths	Hths
		5		

$5 \div 10 = \boxed{}$

b)

H	T	O	Tths	Hths
	1	5		

$15 \div 10 = \boxed{}$

c)

H	T	O	Tths	Hths
		3	8	

$3.8 \div 10 = \boxed{}$

d)

H	T	O	Tths	Hths
	1	3	8	

$13.8 \div 10 = \boxed{}$

What do you notice when you divide a number by 10?

2 Complete the calculations.

a) $7 \div 10 = \boxed{}$

b) $7.8 \div 10 = \boxed{}$

c) $7.86 \div 10 = \boxed{}$

d) $16 \div 10 = \boxed{}$

e) $16.4 \div 10 = \boxed{}$

f) $16.48 \div 10 = \boxed{}$

3 Complete the divisions.

a)

H	T	O	Tths	Hths	Thths
	1	7			

$17 \div 100 = \boxed{}$

b)

H	T	O	Tths	Hths	Thths
		9	4		

$9.4 \div 100 = \boxed{}$

c)

H	T	O	Tths	Hths	Thths
2	7	6			

$276 \div 100 = \boxed{}$

d)

H	T	O	Tths	Hths	Thths
	3	2	5		

$32.5 \div 100 = \boxed{}$

What do you notice when you divide a number by 100?

4 Complete the divisions.

a) $7 \div 100 = \boxed{}$

$7.2 \div 100 = \boxed{}$

$7.25 \div 100 = \boxed{}$

b) $109 \div 100 = \boxed{}$

$10.9 \div 100 = \boxed{}$

$10.95 \div 100 = \boxed{}$

5 Use a place value chart to work out 136 ÷ 1,000

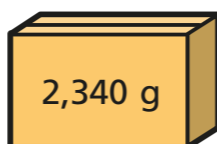| H	T	O	•	Tths	Hths	Thths
1	3	6	•			

Complete the calculation.

136 ÷ 1,000 = ▭

Talk to a partner about your method.

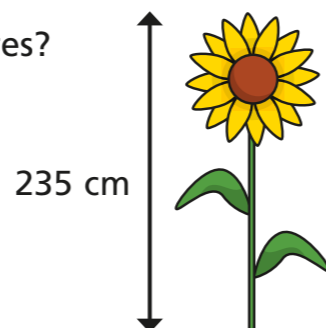**6** Use your knowledge of measure to work out the answers.

a) What is the mass of the box in kilograms?

▭ ÷ ▭ = ▭   2,340 g

b) What is the height of the sunflower in metres?

▭ ÷ ▭ = ▭   235 cm

c) What is the amount of juice in litres?

▭ ÷ ▭ = ▭   380 ml

7 Complete the calculations.

a) 147 ÷ 10 = ▭

147 ÷ 100 = ▭

147 ÷ 1,000 = ▭

b) 21 ÷ 10 = ▭

21 ÷ 100 = ▭

21 ÷ 1,000 = ▭

c) 3,200 ÷ 10 = ▭

3,200 ÷ 100 = ▭

3,200 ÷ 1,000 = ▭

d) 5,006 ÷ 10 = ▭

5,006 ÷ 100 = ▭

5,006 ÷ 1,000 = ▭

8 Complete the divisions.

a) 83 ÷ ▭ = 0.83

b) ▭ ÷ 10 = 0.95

c) ▭ ÷ 10 = 3.9

d) 68 ÷ ▭ = 0.068

e) 1,799 ÷ ▭ = 17.99

f) ▭ ÷ 100 = 11.8

g) 178 ÷ ▭ = 17.8

h) 3.18 ÷ ▭ = 0.318