Multiplying decimals by 10, 100 and 1,000

1 Complete the multiplications.

a)

H	T	O	Tths	Hths
		3	7	

3.7 × 10 = ☐

b)

H	T	O	Tths	Hths
	1	4	5	

14.5 × 10 = ☐

c)

H	T	O	Tths	Hths
		1	5	8

1.58 × 10 = ☐

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1 **d)**

H	T	O	.	Tths	Hths
	1	3	.	0	6

$13.06 \times 10 = \boxed{}$

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

2 Complete the multiplications.

a) 1.7 × 10 = [ ]

d) 13.4 × 10 = [ ]

b) 1.75 × 10 = [ ]

e) 10 × 13.04 = [ ]

c) 1.73 × 10 = [ ]

f) 130.4 × 10 = [ ]

3 Complete the multiplications.

a)

H	T	O	Tths	Hths
		4	1	

$4.1 \times 100 = \boxed{}$

b)

H	T	O	Tths	Hths
		4	1	5

$4.15 \times 100 = \boxed{}$

c)

H	T	O	Tths	Hths
	1	4	5	

$14.5 \times 100 = \boxed{}$

d)

H	T	O	Tths	Hths
		4	0	5

$4.05 \times 100 = \boxed{}$

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

4 Complete the calculations.

a) $7.2 \times 100 =$ ☐

b) $3.4 \times 100 =$ ☐

c) $19.5 \times 100 =$ ☐

d) $1.89 \times 100 =$ ☐

e) $73.57 \times 100 =$ ☐

f) $1.317 \times 100 =$ ☐

5 Amir has multiplied 3.8 by 1,000

The answer is 3.8000

a) What mistake has Amir made?

_____

_____

b) Work out the correct answer.   3.8 × 1,000 = [   ]

6 Complete the multiplications.

a) $4.7 \times 10 =$ [   ]

$4.7 \times 100 =$ [   ]

$4.7 \times 1{,}000 =$ [   ]

c) $5.84 \times 10 =$ [   ]

$5.84 \times 100 =$ [   ]

$5.84 \times 1{,}000 =$ [   ]

b) $19.3 \times 10 =$ [   ]

$19.3 \times 100 =$ [   ]

$1{,}000 \times 19.3 =$ [   ]

d) $18.06 \times 10 =$ [   ]

$100 \times 18.06 =$ [   ]

$18.06 \times 1{,}000 =$ [   ]

How did you work out the answers? Talk to a partner.

7 Complete the calculations.

a) $7.7 \times \boxed{} = 770$

b) $\boxed{} \times 10 = 1{,}950$

c) $11.5 \times \boxed{} = 115$

d) $\boxed{} \times 11.5 = 11{,}500$

e) $8.032 \times \boxed{} = 80.32$

f) $\boxed{} \times 18.3 = 1{,}830$

g) $195.32 \times \boxed{} = 1{,}953.2$

h) $\boxed{} \times 1{,}000 = 7{,}200$

8 Tommy is 1.4 m tall.

A tree is 10 times as tall as Tommy.

A building is 100 times as tall as Tommy.

a) How tall is the tree?

☐ m

b) How much taller is the building than the tree?

☐ m

9 Match the multiplications to the descriptions.

| × 10 × 10 | | multiply by 10 |

| × 10 × 10 × 10 | | |

| × 100 × 10 | | multiply by 100 |

| × 10 × 100 | | |

| × 10 × 1 | | multiply by 1,000 |