

1) Multiply the numbers represented on each place value chart by 10, 100 and 1000.



a)

Tens	Ones	Tenths	Hundredths	Thousandths
	● ●	● ● ●		● ● ● ●

b)

Tens	Ones	Tenths	Hundredths	Thousandths
			● ● ● ● ● ●	● ● ● ● ● ● ● ● ●

c)

Tens	Ones	Tenths	Hundredths	Thousandths
●		● ●		●

2) Complete the missing numbers in this function machine diagram.

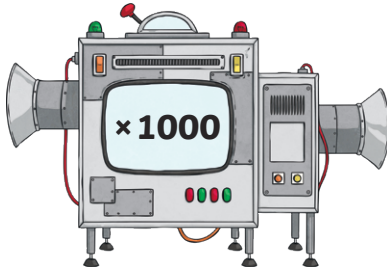
Input

0.73

6.82

15.009

0.08



Output

twinkl.com

1) Multiply the numbers represented on each place value chart by 10, 100 and 1000.



a)

Tens	Ones	Tenths	Hundredths	Thousandths
	● ●	● ● ●		● ● ● ●

b)

Tens	Ones	Tenths	Hundredths	Thousandths
			● ● ● ● ● ●	● ● ● ● ● ● ● ● ●

c)

Tens	Ones	Tenths	Hundredths	Thousandths
●		● ●		●

2) Complete the missing numbers in this function machine diagram.

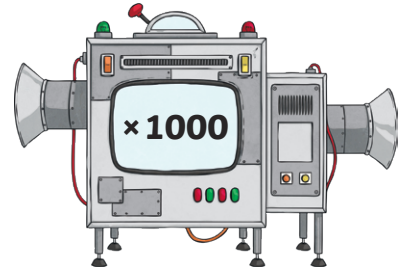
Input

0.73

6.82

15.009

0.08



Output

twinkl.com

- 1) Decide if each calculation is true or false. Explain your reasoning.



a) $0.5 \times 10 = 5$	b) $5.6 \times 100 = 56$
c) $0.65 \times 1000 = 650$	d) $3.05 \times 100 = 305$
e) $50.3 \times 10 = 5.03$	f) $0.005 \times 1000 = 50\ 000$

- 2) Are these comparison statements correct? Explain your reasoning. Using powers of ten, what could you change to make it correct?

$$24.5 \times 10 < 24.9 \times 100 < 0.251 \times 1000$$

$$76 \times 100 > 0.07 \times 1000 < 0.69 \times 100$$

- 3) A new television costs £175. Is Francis correct in her reasoning? Explain how you worked this out.



If I save £7.50 for 20 weeks, I will have enough money to buy the TV.

twinkl.com

- 1) Decide if each calculation is true or false. Explain your reasoning.



a) $0.5 \times 10 = 5$	b) $5.6 \times 100 = 56$
c) $0.65 \times 1000 = 650$	d) $3.05 \times 100 = 305$
e) $50.3 \times 10 = 5.03$	f) $0.005 \times 1000 = 50\ 000$

- 2) Are these comparison statements correct? Explain your reasoning. Using powers of ten, what could you change to make it correct?

$$24.5 \times 10 < 24.9 \times 100 < 0.251 \times 1000$$

$$76 \times 100 < 0.07 \times 1000 < 0.69 \times 100$$

- 3) A new television costs £175. Is Francis correct in her reasoning? Explain how you worked this out.



If I save £7.50 for 20 weeks, I will have enough money to buy the TV.

twinkl.com

- 1) Using only the numbers below, how many different multiplication calculations can you create and answer? Explain how you use multiplying by powers of ten to help.



50	0.5	5000	1000	5
100	10 000	500	20	10

- 2) a) Start with any three-digit whole number.

Take a route through the maze, write down and solve the calculation of the route.

What is your finishing number?

- b) Find a route through the maze that creates the smallest number at the finish.
- c) Find a route through the maze that creates the biggest number at the finish.
- d) Find a route through the maze that creates the same number at the start and finish.

Start	↔	×10	↔	÷10	↔	×1000
↑↓	■	↑↓	■	↑↓	■	↑↓
×100	↔	÷100	↔	÷10	↔	÷1000
↑↓	■	↑↓	■	↑↓	■	↑↓
÷10	↔	×100	↔	×1000	↔	×10
↑↓	■	↑↓	■	↑↓	■	↑↓
÷1000	↔	×100	↔	÷100	↔	Finish

- 1) Using only the numbers below, how many different multiplication calculations can you create and answer? Explain how you use multiplying by powers of ten to help.



50	0.5	5000	1000	5
100	10 000	500	20	10

- 2) a) Start with any three-digit whole number.

Take a route through the maze, write down and solve the calculation of the route.

What is your finishing number?

- b) Find a route through the maze that creates the smallest number at the finish.
- c) Find a route through the maze that creates the biggest number at the finish.
- d) Find a route through the maze that creates the same number at the start and finish.

Start	↔	×10	↔	÷10	↔	×1000
↑↓	■	↑↓	■	↑↓	■	↑↓
×100	↔	÷100	↔	÷10	↔	÷1000
↑↓	■	↑↓	■	↑↓	■	↑↓
÷10	↔	×100	↔	×1000	↔	×10
↑↓	■	↑↓	■	↑↓	■	↑↓
÷1000	↔	×100	↔	÷100	↔	Finish