Calculation Maze Challenge

To multiply and divide numbers by 10, 100 and 1000, giving answers up to three decimal places.

Choose any decimal number to start with. You can only move on to each box once. You do not have to move on to every box.

Find a route through the maze that creates the smallest number at the finish:

Find a route through the maze that creates the biggest number at the finish:

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

Calculation Maze Challenge **Answers**

To multiply and divide numbers by 10, 100 and 1000, giving answers up to three decimal places.

Choose any decimal number to start with. You can only move on to each box once. You do not have to move on to every box.

Find a route through the maze that creates the smallest number at the finish:

× 10, ÷ 100, ÷ 10, ÷ 1000, × 10

Find a route through the maze that creates the biggest number at the finish:

× 100, ÷ 10, × 100, × 1000, × 10

Find a route through the maze that creates the same number at the start and finish:

× 10, ÷ 10, × 1000, ÷ 1000, ÷ 10, × 1000, ÷ 100

Start	→ ←	× 10	→ ←	÷ 10	→ ←	× 1000
↑ ↓		↑ ↓		↑ ↓		↑ ↓
× 100	→ ←	÷ 100	→ ←	÷ 10	→ ←	÷ 1000
↑ ↓		↑ ↓		↑ ↓		↑ ↓
÷ 10	→ ←	× 100	→ ←	× 1000	→ ←	× 10
↑ ↓		↑ ↓		↑ ↓		↑ ↓
÷ 1000	→ ←	× 100	→ ←	÷ 100	→ ←	Finish

0.017

1.102

0.136

0.242

0.026

0.132

0.214

0.284

0.302

0.321

0.432

0.504

0.312

0.326

0.454

0.552

0.604

0.629

0.766

0.784

0.612

0.633

0.775

0.799

0.814

0.837
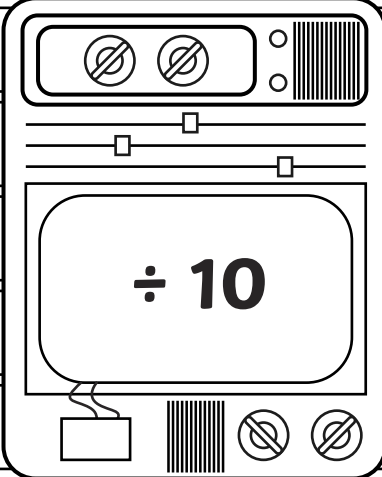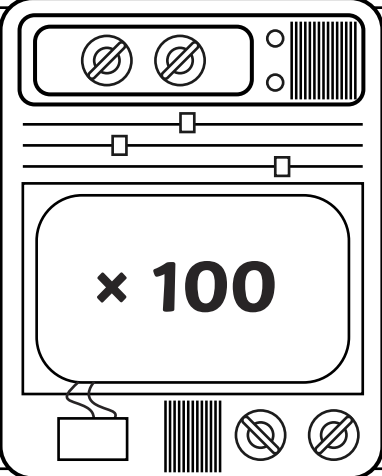
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0.899

0.901

0.948
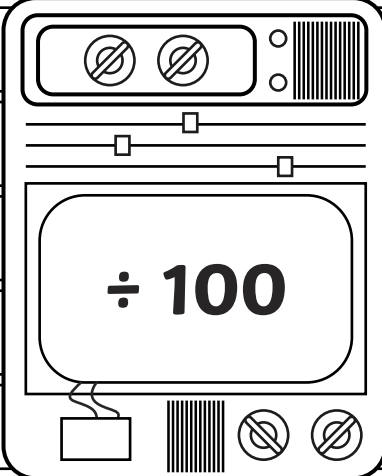
0.956
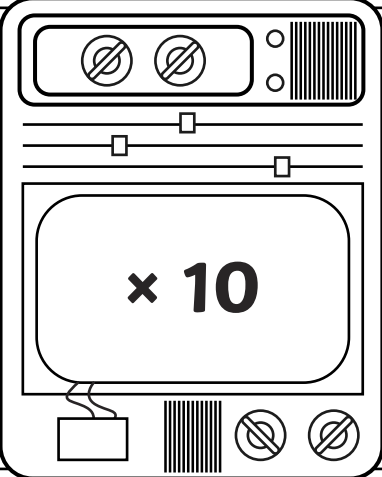
0.999

Place Value Function Machines

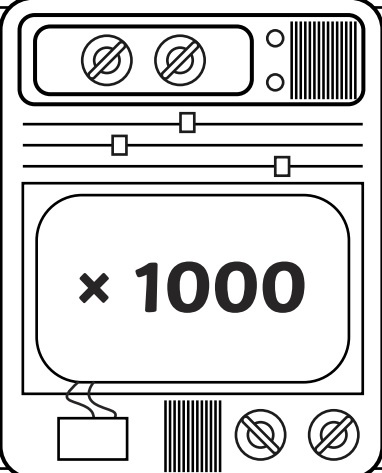To multiply and divide numbers by 10, 100 and 1000, giving answers up to three decimal places.

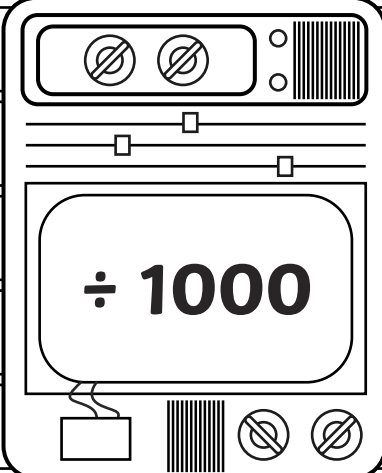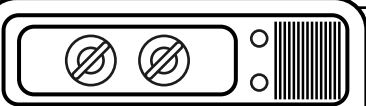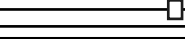Complete the missing output numbers for the 'Place-Value-O-Matic' function machines, which multiply and divide numbers by 10, 100 and 1000.

Input	× 10	Output
2.1		
5.57		
3.06		
4.703		

Input	÷ 10	Output
67		
83.2		
20.9		
126.8		

Input	× 100	Output
3.8		
9.03		
3.832		
14.703		

Input	÷ 100	Output
49.2		
60.7		
115.9		
295.3		

Input	× 1000	Output
7.9		
8.02		
7.926		
25.729		
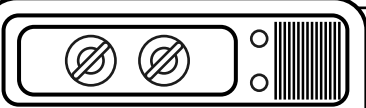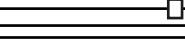
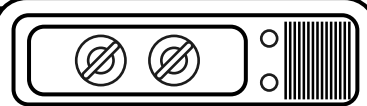| Input	÷ 1000	Output
739		
1945		
20 521		
95 732		
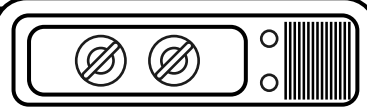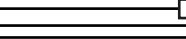
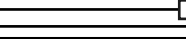# Place Value Function Machines

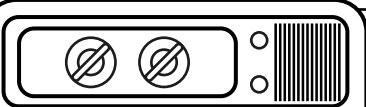To multiply and divide numbers by 10, 100 and 1000, giving answers up to three decimal places.
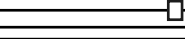
Complete the missing output numbers for the 'Place-Value-O-Matic' function machines, which multiply and divide numbers by 10, 100 and 1000.
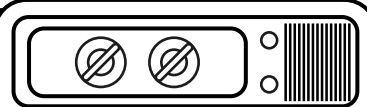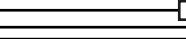
Input	× 10	Output
7.3		
		68.2
5.09		
		68.31

Input	÷ 10	Output
67		
		4.72
21.9		
		78.29

Input	× 100	Output
8.2		
		845
7.381		
		8528.5

Input	÷ 100	Output
98.7		
		0.827
113.8		
		6.793

Input	× 1000	Output
7.5		
		905
7.721		
		50 832

Input	÷ 1000	Output
731		
		94.717
28 294		
		782.492

Place Value Function Machines

To multiply and divide numbers by 10, 100 and 1000, giving answers up to three decimal places.

Complete the missing output numbers for the 'Place-Value-O-Matic' function machines, which multiply and divide numbers by 10, 100 and 1000.
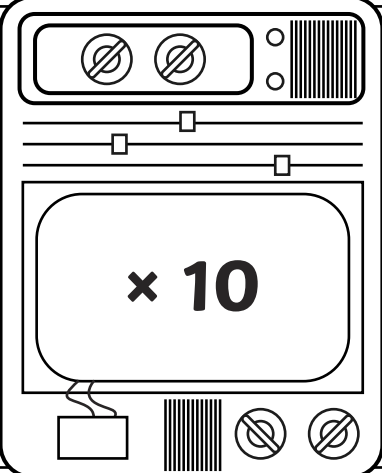
Input	× 10	+ 1000	÷ 100	Output
52.1				
95.57				
13.06				
47.03				
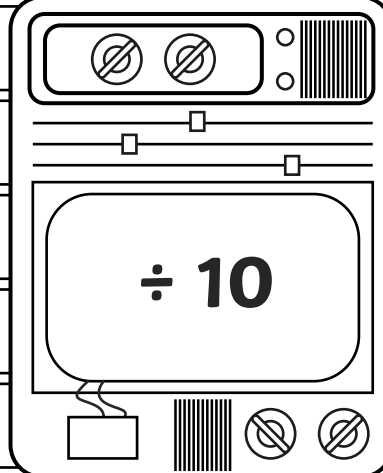
Input	÷ 10	+ 0.1	× 1000	Output
3.8				
9.03				
3.832				
14.703				
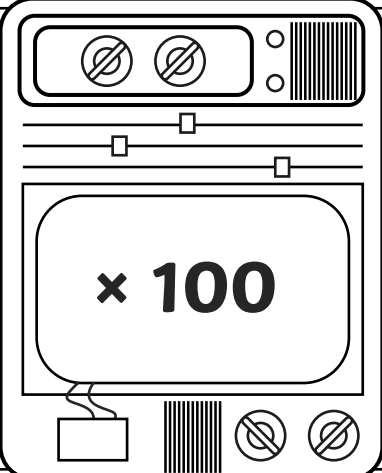
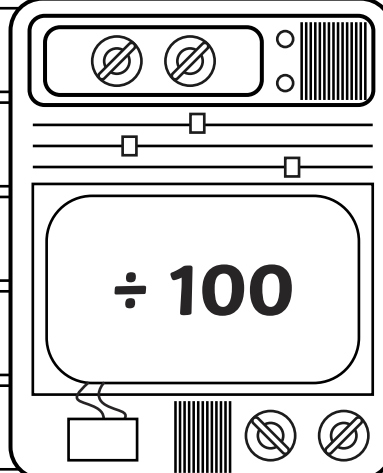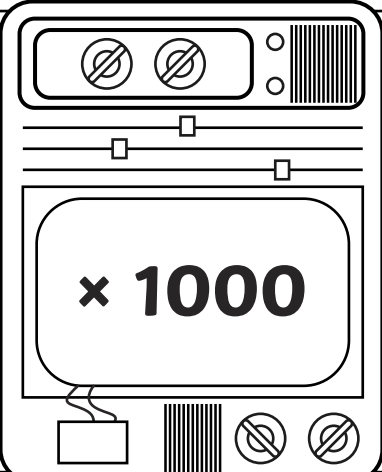| Input	× 100	- 10	÷ 1000	Output
7.9				
8.02				
79.26				
25 729				

Place Value Function Machines **Answers**

Complete the missing output numbers for the 'Place-Value-O-Matic' function machines, which multiply and divide numbers by 10, 100 and 1000.
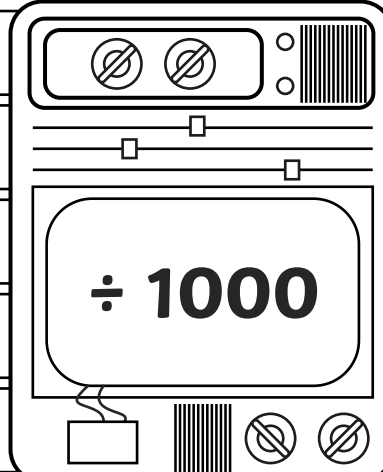
× 10

Input	Output
2.1	21
5.57	55.7
3.06	30.6
4.703	47.03

÷ 10

Input	Output
67	6.7
83.2	8.32
20.9	2.09
126.8	12.68

× 100

Input	Output
3.8	380
9.03	903
3.832	383.2
14.703	1470.3

÷ 100

Input	Output
49.2	0.492
60.7	0.607
115.9	1.159
295.3	2.953
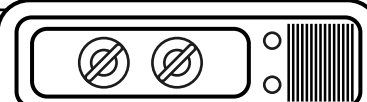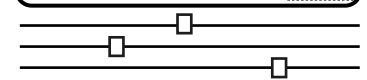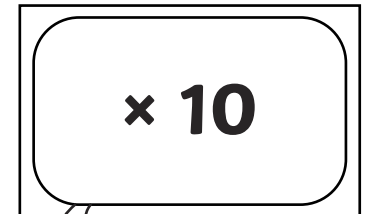
× 1000

Input	Output
7.9	7900
8.02	8020
7.926	7926
25.729	25 729
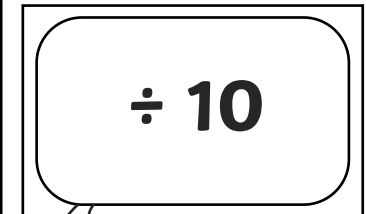
÷ 1000

Input	Output
739	0.739
1945	1.945
20 521	20.521
95 732	95.732
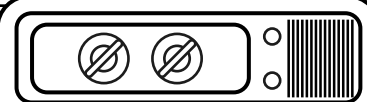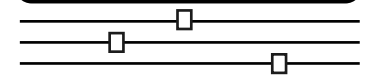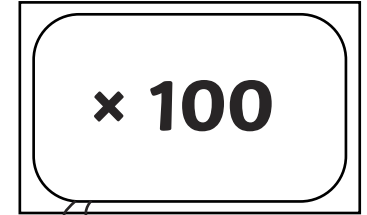
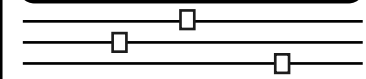# Place Value Function Machines **Answers**

Complete the missing output numbers for the 'Place-Value-O-Matic' function machines, which multiply and divide numbers by 10, 100 and 1000.

× 10

Input	Output
7.3	**73**
6.82	68.2
5.09	**50.9**
6.831	68.31

÷ 10

Input	Output
67	**6.7**
47.2	4.72
21.9	**2.19**
782.9	78.29

× 100

Input	Output
8.2	**820**
8.45	845
7.381	**738.1**
85.285	8528.5

÷ 100

Input	Output
98.7	**0.987**
82.7	0.827
113.8	**1.138**
679.3	6.793

× 1000

Input	Output
7.5	**7500**
0.905	905
7.721	**7721**
50.832	50 832

÷ 1000

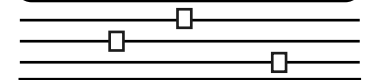| Input	Output
731	**0.731**
94 717	94.717
28 294	**28.294**
782 492	782.492

Place Value Function Machines **Answers**

Complete the missing output numbers for the 'Place-Value-O-Matic' function machines, which multiply and divide numbers by 10, 100 and 1000.
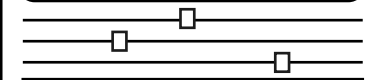
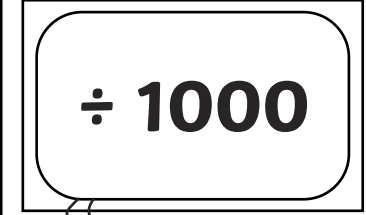| Input	× 10	+ 1000	÷ 100	Output
52.1				15.21
95.57				19.557
13.06				11.306
47.03				14.703

Input	÷ 10	+ 0.1	× 1000	Output
3.8				480
9.03				1003
3.832				483.92
14.703				1570.3

Input	× 100	- 10	÷ 1000	Output
7.9				0.78
8.02				0.792
79.26				7.916
25 729				2572.89

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