Answers for Y6 Maths (wb 08.06.20)

Morning Mental Maths

Monday	Tuesday	Wednesday	Thursday	Friday
1. 22.95	11. 25.75	21. 62.21	31. 144.75	41. 201.67
2. 7	12. 6	22. 5	32. 4	42. 8
3. 550	13. 62	23. 9400	33. 46	43. 30
4. 5/10	14. 3/10	24. 0.85	34. 1/5	44. 0.9
5. 10	15. 7	25. 60	35. 16	45. 14
6. 65/100 or 13/20	16. 21/100	26. 2/100 or 1/50	36. 89/100	46. 7/100
7. £7.63	17. £3.36	27. £19.17	37. £2.00	47. £5.14
8. -3°C	18. -4°C	28. -5°C	38. -7°C	48. -10°C
9. 39	19. 66	29. 53	39. 247	49. 253
10. 19	20. 23	30. 44	40. 50	50. 36

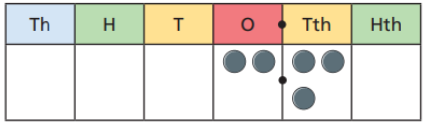
Monday

Answers provided at end of download

Tuesday

1 Complete the calculations and sentences.

Use place value counters to help you.



a) 2.3 × 10 = 23

When the number is multiplied by 10 the counters move 1 place to the left.

b) 2.3 × 100 = 230

When the number is multiplied by 100 the counters move 2 places to the left.

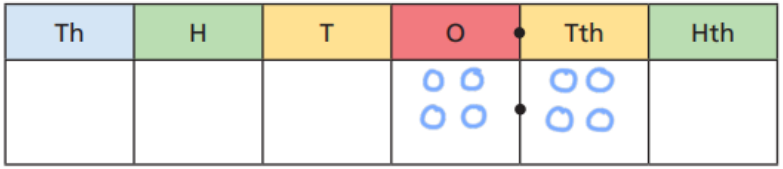
c) 2.3 × 1,000 = 2,300

When the number is multiplied by 1,000 the counters move 3 places to the left.

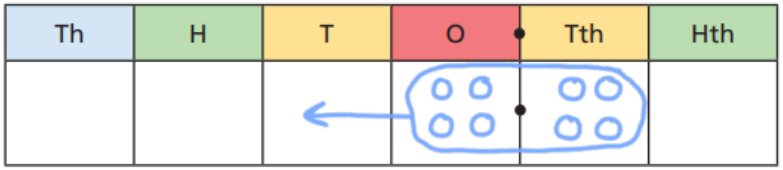
2 Complete the diagram.

3 **a)** Draw counters on the place value charts to represent each calculation.

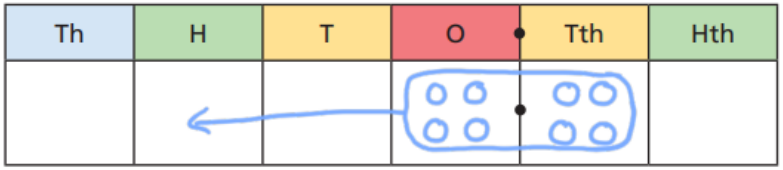
4.4 × 1



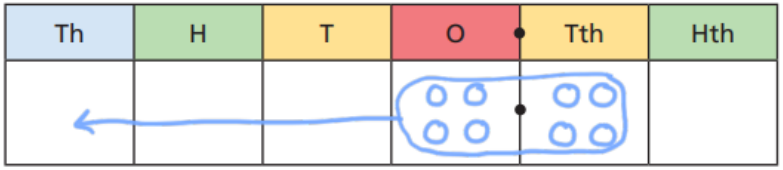
4.4 × 10



4.4 × 100



4.4 × 1,000



b) Complete the calculations.

4.4 × 1 = 4·4

4.4 × 10 = 44

4.4 × 100 = 440

4.4 × 1,000 = 4,400

What do you notice?

4 Complete the calculations.

a) 13.44 × 10 = 134·4

b) 41.4 × 100 = 4,140

c) 0.415 × 1,000 = 415

d) 4.4 × 1,000 = 4,400

e) 103 = 1.03 × 100

f) 30.44 = 3·044 × 10

5 Complete the diagrams.

7.039 → (× 10) 70·39 → (× 10) 703·9 → (× 10) 7,039

7.039 → (× 100) 703·9 → (× 10) 7,039

7.039 → (× 1,000) 7,039

What do you notice? Why does this happen?

They all give the same final answer because 10 x 10 x 10 = 100 x 10 = 1,000

6 Write >, < or = to compare the number sentences.

1.4 × 10 × 10 × 10 **=** 1.4 × 1,000

1.4 × 10 × 100 **=** 1.4 × 1,000

1.4 × 10 × 10 **<** 1.4 × 1,000

1.4 × 10 × 2 **<** 1.4 × 100

1 Complete the calculations and sentences.

Use place value counters to help you.

Th	H	T	O •	Tth	Hth
	●	● ● ● ●			

a) 140 ÷ 10 = 14

When the number is divided by 10 the counters move 1 place to the right.

b) 140 ÷ 100 = 1·4

When the number is divided by 100 the counters move 2 places to the right.

c) 140 ÷ 1,000 = 0·14

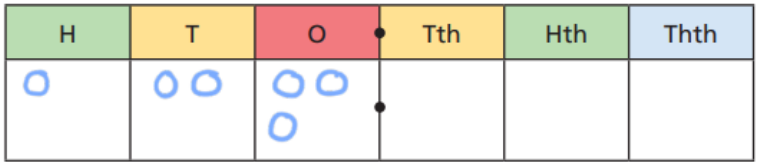
When the number is divided by 1,000 the counters move 3 places to the right.

2 Complete the diagram.

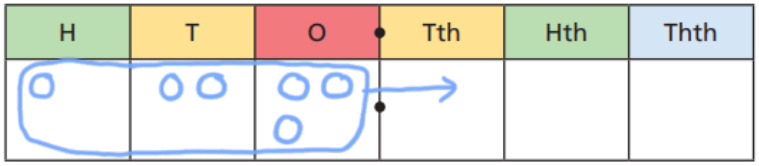
43 → (÷ 10) 4·3 → (÷ 10) 0·43

3 **a)** Draw counters to represent the calculations.

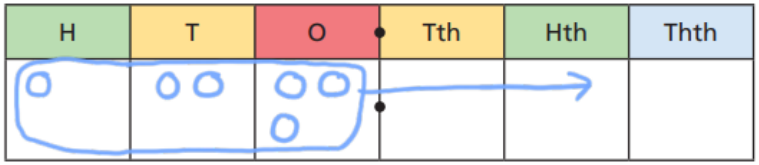
123 ÷ 1



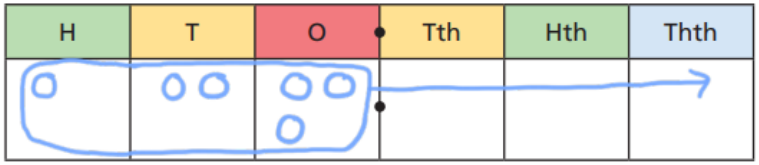
123 ÷ 10



123 ÷ 100



123 ÷ 1,000



b) Complete the calculations.

123 ÷ 1 = 123

123 ÷ 10 = 12.3

123 ÷ 100 = 1.23

123 ÷ 1,000 = 0.123

What do you notice?

4 Complete the calculations.

a) 16 ÷ 10 = 1·6

b) 43.4 ÷ 100 = 0·434

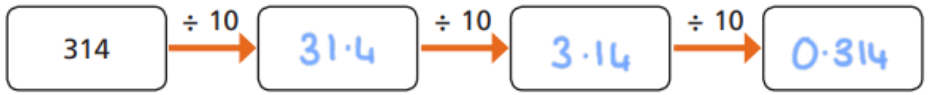
c) 614 ÷ 1,000 = 0.614

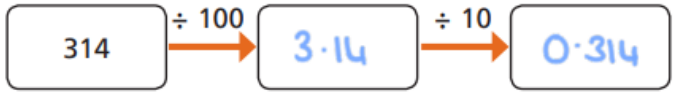
d) 332 ÷ 1,000 = 0.332

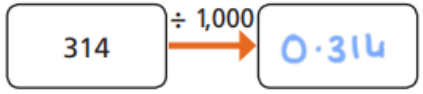
e) 2.4 ÷ 200 = 0.012

f) 5.09 = 101.8 ÷ 20

5 Complete the diagrams.



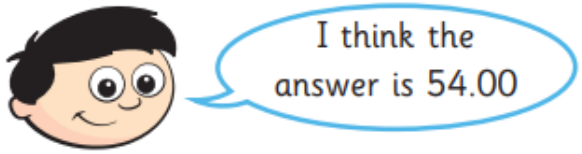




What do you notice? Why does this happen?

They all give the same final answer because 10 x 10 x 10 = 100 x 10 = 1,000

7 Dexter is solving the calculation 5,400 ÷ 100



Is Dexter correct? Yes

Explain your reasoning.

54·00 is the same as 54

Wednesday

1 Use place value counters to solve the calculations.

a) 3.2 × 3 = 9·6

Ones	Tenths
1 1 1	0.1 0.1
1 1 1	0.1 0.1
1 1 1	0.1 0.1

b) 4.6 × 2 = 9·2

Ones	Tenths
1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1
1 1 1 1	0.1 0.1 0.1 0.1 0.1 0.1

2 Solve the multiplication. Draw your answer.

12.2 × 3 = 36·6

Tens	Ones	Tenths
0 0 0	0 0 0 0 0 0	0 0 0 0 0 0

3 Nijah uses long multiplication to solve 3.72 × 3

		3	7	2	
	×			3	
		0	0	6	
		2	1	0	
		9	0	0	
	1	1	1	6	

Use long multiplication to work out the calculations.

a)

		4	8	6	
	×			4	
		0	2	4	
		3	2	0	
	1	6	0	0	
	1	9	4	4	

b)

		2	0	9	
	×			6	
		0	5	4	
		0	0	0	
	1	2	0	0	
	1	2	5	4	

4 Work out the multiplications.

a) 5.2 × 4 = 20·8

b) 14.3 × 3 = 42·9

c) 6 × 9.1 = 54·6

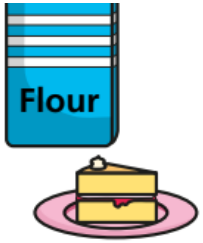
d) 7·02 = 2.34 × 3

e) 11.505 × 4 = 46·02

f) 9.602 × 6 = 57·612

5 0.25 kg of flour is needed to make one cake.

How much flour is needed to make four cakes?



1 kg

6 Work out the multiplications.

a) 7.2 × 2 = 14·4

7.2 × 4 = 28·8

14.4 × 4 = 57·6

7.2 × 8 = 57·6

b) 10·35 = 3.45 × 3

103·5 = 34.5 × 3

1,035 = 345 × 3

7 Amir is solving 3.4 × 4

To solve this, I did 34 × 4, which was 136
Then I multiplied my answer by 10 to get an answer of 1,360

Do you agree with Amir? NO

Explain why.

34 is ten times bigger than 3·4 so he should have divided by 10 to get 13·6

8 Use the digits 1, 2, 3 and 4 once each to create a calculation..

1	2	3	4

□ . □ □ × □

a) How many different products can you make?

Various answers

b) What is the greatest possible product?

12·84

c) What is the smallest possible product?

234

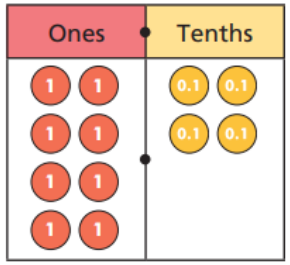
d) What is the product closest to 12?

12·36

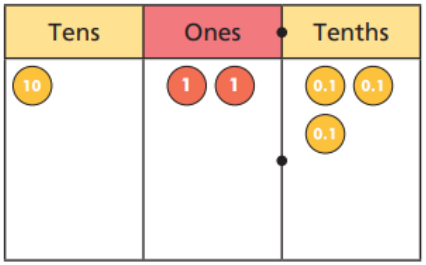
Thursday

1 Use place value counters to work out the divisions.

a) 8.4 ÷ 4 = 2·1

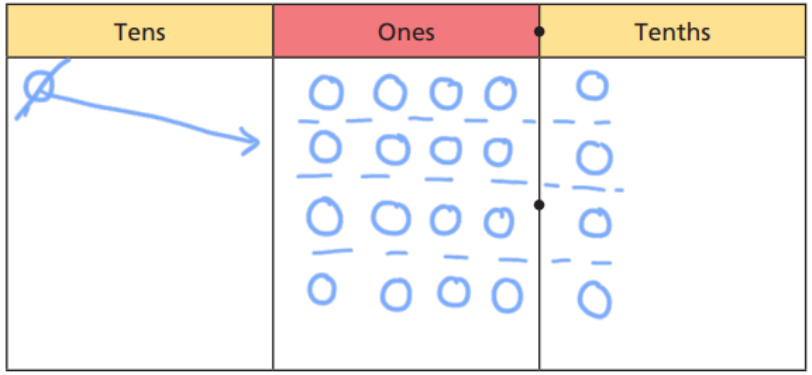


b) 12.3 ÷ 3 = 4·1

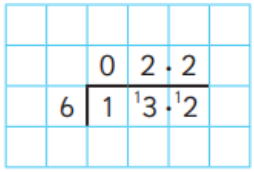


2 Work out the division. Draw your answer.

16.4 ÷ 4 = 4·1

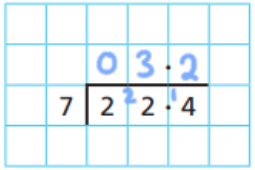


3 Brett uses short division to work out 13.2 ÷ 6

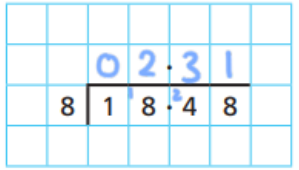


Use short division to work out the calculations.

a)



b)



4 Work out the divisions.

a) 25.6 ÷ 8 = 3·2

b) 14.8 ÷ 4 = 3·7

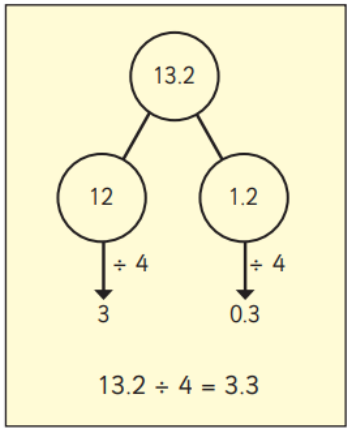
c) 18.48 ÷ 6 = 3·08

d) 3·89 = 19.45 ÷ 5

e) 202.35 ÷ 3 = 67·45

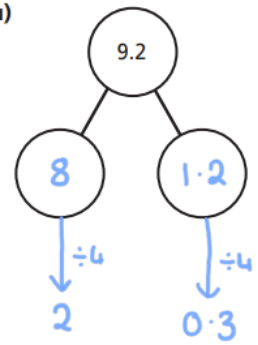
f) 105.12 ÷ 9 = 11·68

5 Esther solves 13.2 ÷ 4 by partitioning 13.2 into two numbers that are easier to divide.



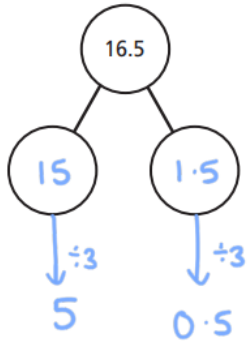
Use Esther's method to complete the part-whole model and calculation.

a)



9.2 ÷ 4 = 2·3

b)



16.5 ÷ 3 = 5·5

6 Work out the divisions.

a) 9.64 ÷ 4 = 2·41

96.4 ÷ 4 = 24·1

0.964 ÷ 4 = 0·241

9.64 ÷ 8 = 1·205

b) 19.44 ÷ 9 = 2·16

19.53 ÷ 9 = 2·17

19.62 ÷ 9 = 2·18

7 Fill in the missing numbers.

3.6 ÷ 4 = 36 ÷ 40

3.6 ÷ 4 = 7·2 ÷ 8

8 Complete the calculation.

e.g. 8.4 ÷ 2 = 4.2 ÷ 1

How many different solutions can you find?

Friday

1 Complete the sentences.

a)

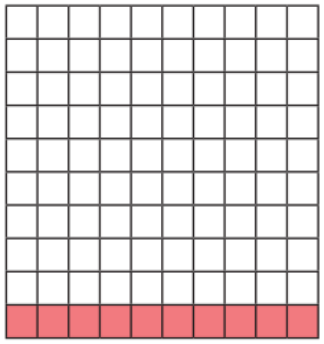
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

The whole has been divided into [10] equal parts.

Each part is worth [0·1]

This is equivalent to [$\frac{1}{10}$]

b)



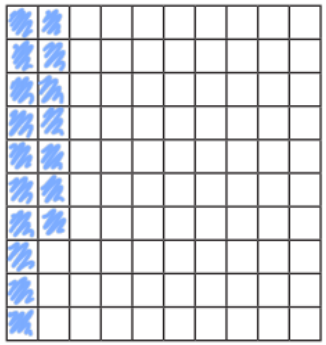
The whole has been divided into [100] equal parts.

Each part is worth [0·01]

[10] parts out of [100] are shaded.

This is equivalent to [$\frac{10}{100}$] or [$\frac{1}{10}$]

2 **a)** Shade 0.17 of the hundred square.



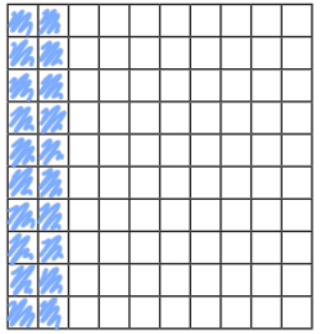
Complete the sentence.

[17] parts out of [100] are shaded.

Write 0.17 as a fraction.

0.17 = [$\frac{17}{100}$]

b) Shade 0.2 of the hundred square.



Complete the sentence.

[20] parts out of [100] are shaded.

Write 0.2 as a fraction in its simplest form.

0.2 = [$\frac{1}{5}$]

3

0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

0.2	0.2	0.2	0.2	0.2

Use the bar models to fill in the missing numbers.

$0.2 = \frac{2}{10} = \frac{1}{5}$

$0.4 = \frac{4}{10} = \frac{2}{5}$

$0.8 = \frac{8}{10} = \frac{4}{5}$

4 Fill in the missing numbers.

a) $0.54 = \frac{54}{100} = \frac{27}{50}$

b) $0.6 = \frac{6}{10} = \frac{3}{5}$

c) $0.3 = \frac{3}{10} = \frac{30}{100}$

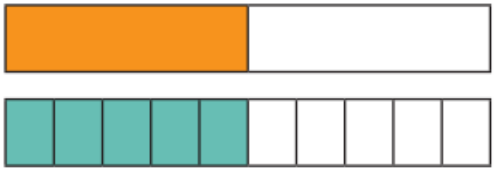
d) $0.09 = \frac{9}{100}$

e) $0.9 = \frac{9}{10}$

f) $\frac{21}{50} = \frac{42}{100} = 0.42$

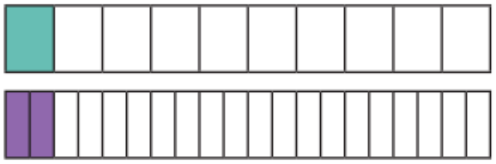
5 Use the bar models to fill in the missing numbers.

a)



$\frac{1}{2} = \frac{5}{10} = 0.5$

b)

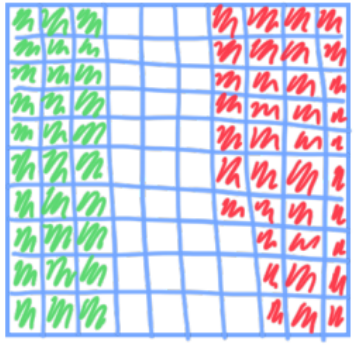


$0.1 = \frac{1}{10} = \frac{2}{20}$

6

0.3 = $\frac{3}{10}$ so 0.37 = $\frac{37}{10}$

Draw a diagram to show that Ron is wrong.



$0.3 = \frac{3}{10}$

$0.37 = \frac{37}{100}$