11.01.21

Fab four - fluency

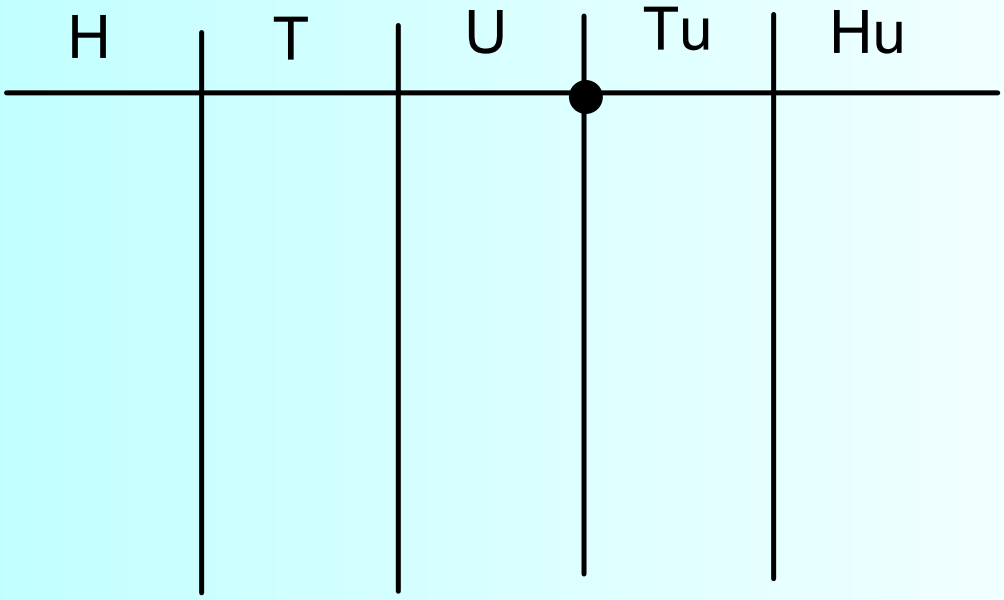
1. 4882 + 310 =

2. 6423 - 150 =

3. 54 x 7 = (use grid method)

4. 480 - 8 =

Multiplying and dividing by 10 and 100



52

11.01.21 I can multiply and divide by ten and a hundred.

Mild

16 x 10

41 x 10

37 x 100

12 x 100

340 ÷ 10

520 ÷ 10

700 ÷ 100

800 ÷ 100

17 ÷ 10

672 ÷ 100

Spicy

34 x 10	34 x 100
3.4 x 10	3.4 x 100
650 ÷ 10	650 ÷ 100
72 ÷ 10	7 ÷ 10
800 ÷ 100	80 ÷ 100
4.5 x ☐ = 45	4.5 x ☐ = 450
270 ÷ ☐ = 2.7	270 ÷ ☐ = 27

Hot

4 x 10 x 10 = 4 x ☐

65 x 100 ÷ 10 = 65 x ☐

280 ÷ 10 ÷ 10 = 280 ÷ ☐

760 ÷ 100 x 10 = 760 ÷ ☐

4.5 x ☐ = 4.5 x 10 x 10

3.7 x ☐ ÷ 10 = 3.7 x 10

600 ÷ ☐ ÷ 10 = 6 ÷ 10

0.7 x 100 ÷ ☐ = 0.7 x 10

3.6 x ☐ x ☐ = 360

940 ÷ ☐ ÷ ☐ = 9.4

72 x ☐ ÷ ☐ = 7.2

Can you write some missing number questions for someone else to try?

12.01.21

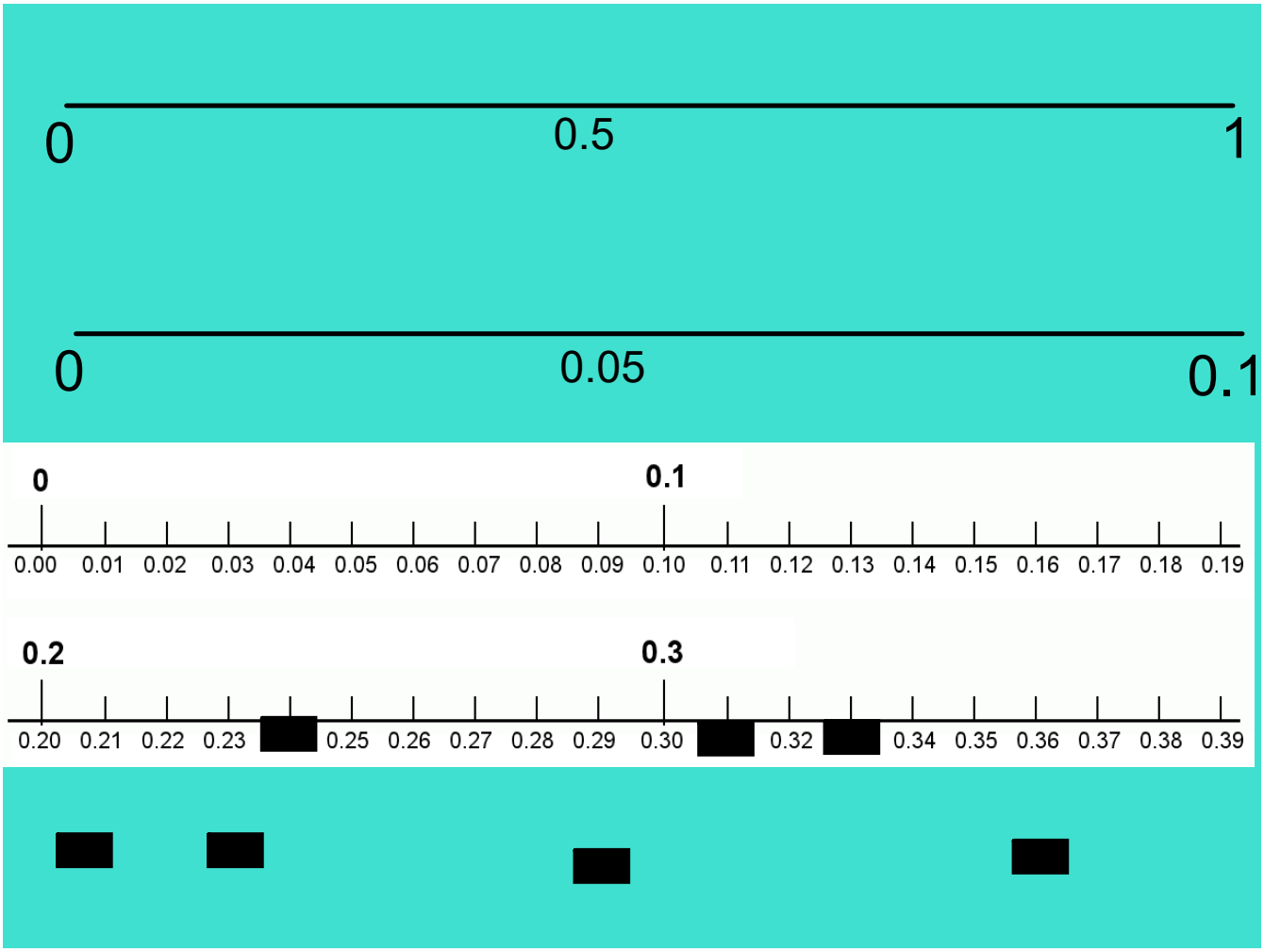
Fab four - fluency

1. 7253 + 370 =

2. 8462 - 280 =

3. 156 x 6 = (use grid method)

4. 320 ÷ 8 =


0
0.5
1
0
0.05
0.1
0
0.1
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14 0.15 0.16 0.17 0.18 0.19
0.2
0.3
0.20 0.21 0.22 0.23 0.25 0.26 0.27 0.28 0.29 0.30 0.32 0.34 0.35 0.36 0.37 0.38 0.39

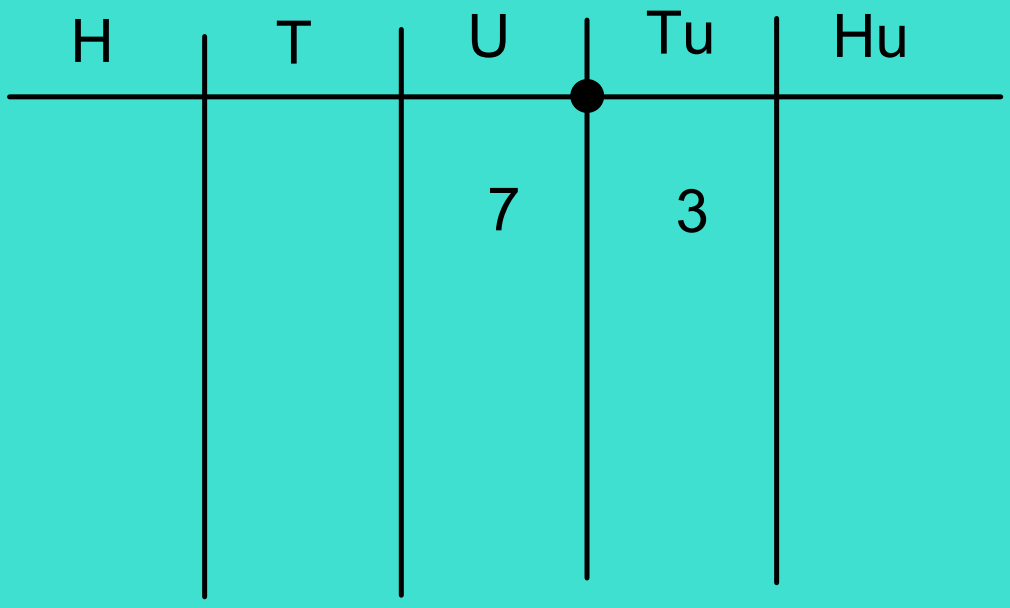
	Th	H	T	U	Tu	Hu

672 ÷ 100

270 ÷ 100

27 ÷ 10

Multiplying and dividing



÷ 10

÷ 100

x 10

x 100

12.01.21 I can multiply and divide by ten and a hundred.

Mild

4 x 100 =

75 x 10 =

21 x 1000 =

100 x 33 =

60 x 10 =

2400 ÷ 100 =

68 ÷ 10 =

350 ÷ 1000 =

9 ÷ 10 =

9 ÷ 1000 =

Spicy

15 x 10 ÷ 100

6 ÷ 100 x 1000

6 ÷ _____ = 0.6

_____ x 100 = 4500

0.74 = 74 ÷ _____

1000 x _____ = 65800

3.7 x ____ = 370

2800 ÷ ____ = 2.8

0.03 x ____ = 3

Hot

1 Put these calculations in order from smallest to biggest.

100 × 540	5.4 ×1000	5400 ÷ 10	5400 ÷ 1000	540 ÷ 10

2 By using a number from column A, an operation from B and a number from C, how many ways can you find to make 70?

A	B	C
7	×	1
70		10
700	÷	100
7000		1000

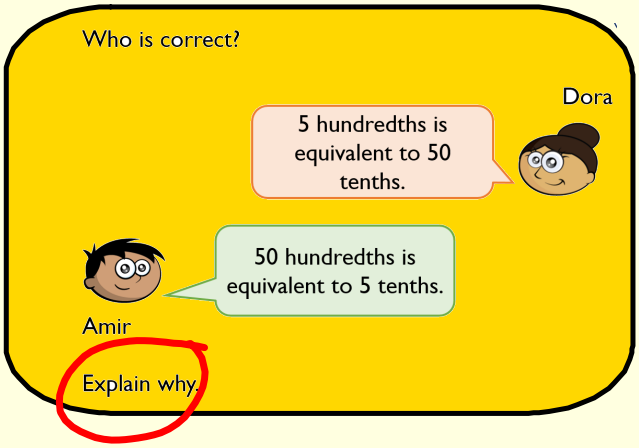
There are more than 4 ways.

3 Can you find a path from 6 to 0.06?

You are not allowed to make diagonal moves.

6	**x 10**	**x 10**	**÷ 100**
÷ 10	**x 100**	**x 100**	**÷ 10**
x 10	**÷ 10**	**÷ 1000**	**÷ 100**
÷ 1000	**x 1000**	**x 100**	**0.06**

Challenge:


Who is correct?
Dora
5 hundredths is equivalent to 50 tenths.
50 hundredths is equivalent to 5 tenths.
Amir
Explain why.

13.01.21

Fab four - fluency

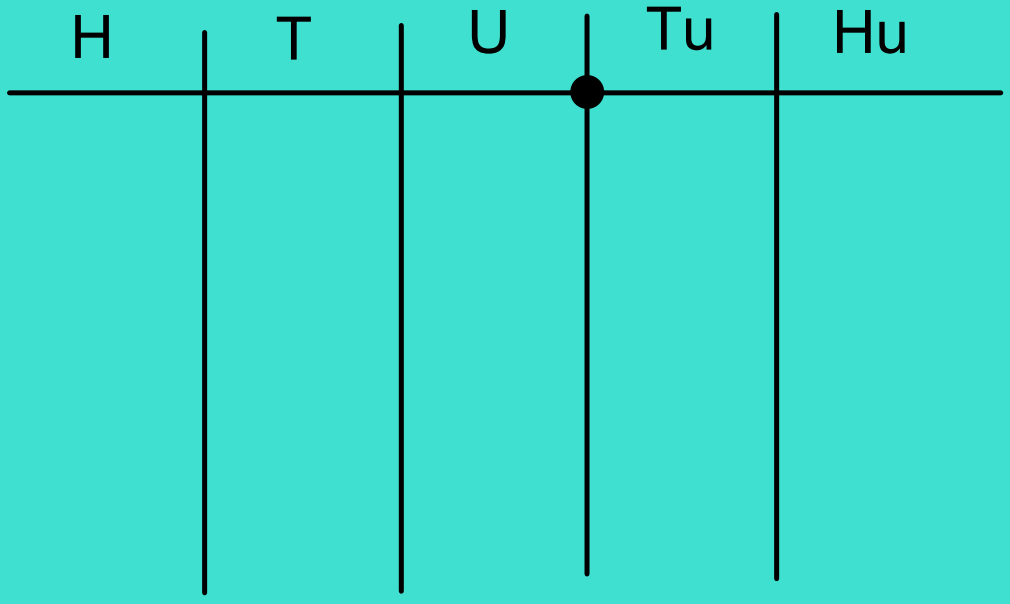
1. 6541 + 125 =

2. 3472 - 155 =

3. 132 x 7 = (use grid method)

4. 270 ÷ 9 =

Multiplying and dividing recap



÷ 10

÷ 100

x 10

x 100

Mild

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are four cards.

Use a card to complete each calculation. You can use a card more than once.

x 100	÷ 10	x 10	÷ 100

27	☐	= 270	9	☐	= 0.9	12	☐	= 1200
27	☐	= 2.7	9	☐	= 900	12	☐	= 1.2
27	☐	= 2700	9	☐	= 90	12	☐	= 120

Spicy

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10	x 100	x 1000	÷ 10	÷ 100	÷ 1000

4.2	☐	= 4200	93	☐	= 0.93	286	☐	= 0.286
4.2	☐	= 0.42	93	☐	= 9300	286	☐	= 2860
4.2	☐	= 420	93	☐	= 930	286	☐	= 2.86

Hot

Reasoning – Multiplying and Dividing by 10, 100 and 1000

Here are six cards.

Use a card to complete each calculation. You can use a card more than once.

x 10	x 100	x 1000	÷ 10	÷ 100	÷ 1000

16.8	☐	= 168	637	☐	= 0.637	4.84	☐	= 484
16.8	☐	= 0.168	637	☐	= 63,700	4.84	☐	= 4840
16.8	☐	= 1680	637	☐	= 6.37	4.84	☐	= 48.4

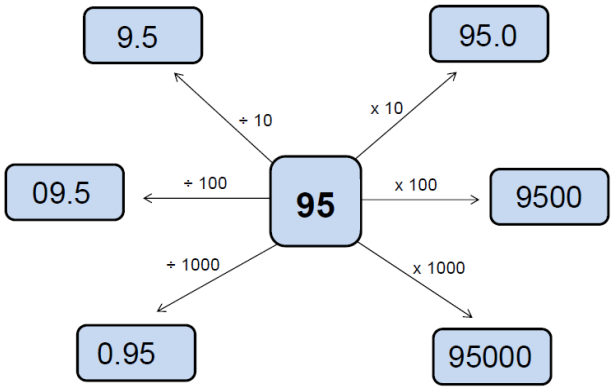
Extension

$7 \times 10 \times 10 \times$ ★ $\times 10 = 21{,}000$

★ $\times 100 \times$ ▲ $= 30{,}000$

■ $\times$ ★ $\div$ ▲ $= 3.6$

What do the symbols represent?



Which calculations are correct?
Which are incorrect? Explain why.

14.01.21

Fab four - fluency

1. 4781 + 2534 =

2. 5673 - 1029 =

3. 234 x 5 = (use grid method)

4. 640 ÷ 8 =

Hundredths

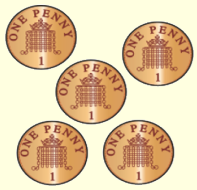
£1 (or 100 p)	10 p	1 p

£			

£1 (or 100 p)	10 p	1 p

£ | | . | |

Your turn:



£1 (or 100 p)	10 p	1 p

£		•	

Your turn:

I can count in hundreths.

1) 0.4 0.5 0.6 0.7 ____

2) 0.9 0.8 0.7 0.6 ____

3) 0.9 1 1.1 1.2 ____

4) 0.7 ____ 0.9 ____ 1.1

5) 2.4 2.3 ____ ____ 2

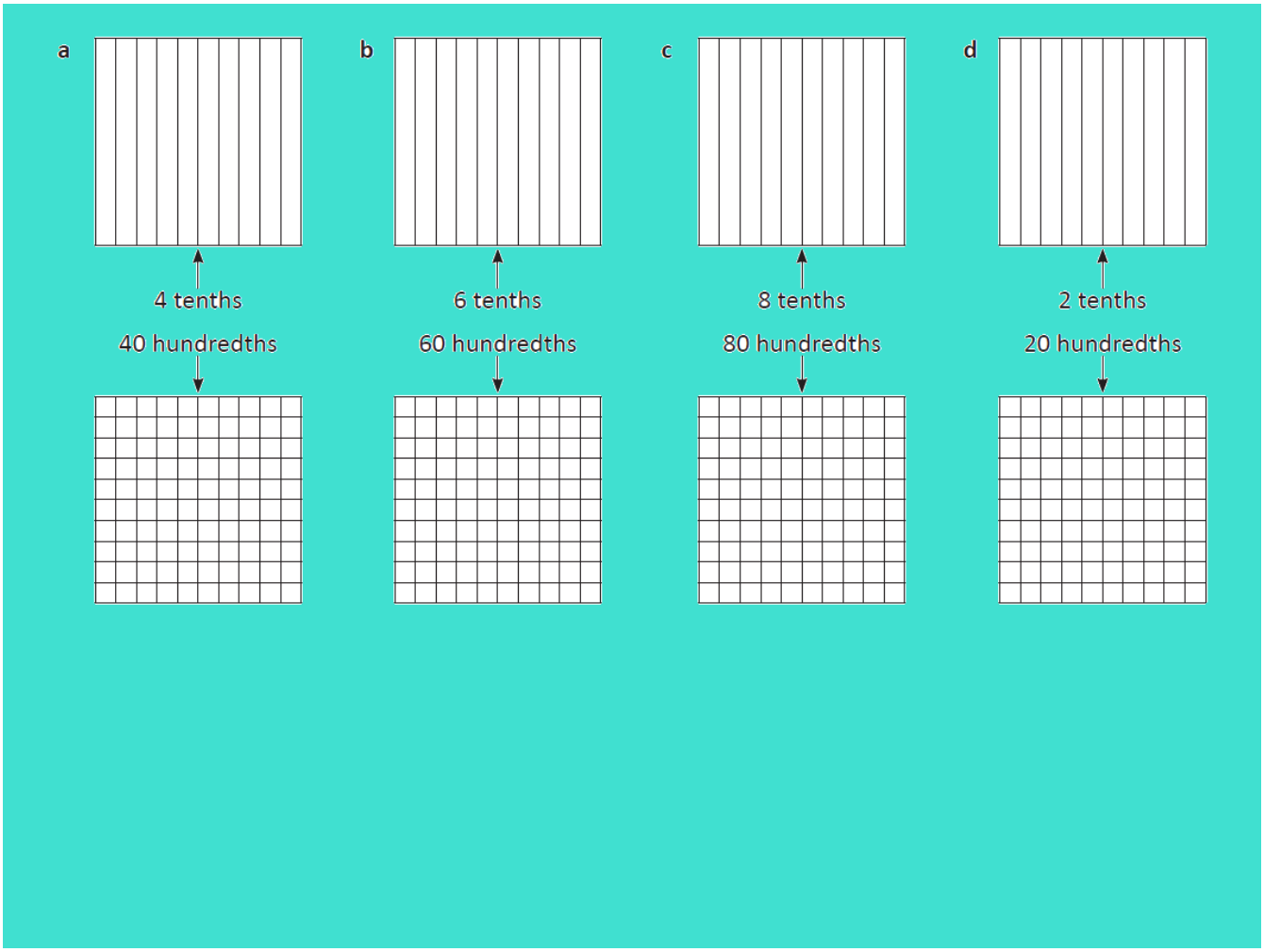
6) 0.73 0.74 0.75 0.76 ____

7) 0.32 0.31 0.3 0.29 ____

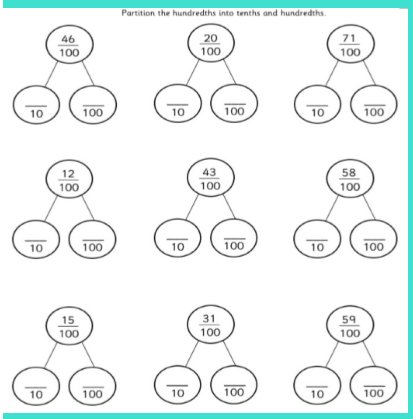
8) 5.67 ____ 5.69 ____ 5.71

9) 9.92 9.91 9.9 ____ ____

10) 10.32 10.33 ____ ____ ____


a
4 tenths
40 hundredths
b
6 tenths
60 hundredths
c
8 tenths
80 hundredths
d
2 tenths
20 hundredths

Mild



Spicy

Arrange all the digits to make a 3-digit number with 2-decimal places that meets the given criteria.

1. Between 4.6 and 4.7: **7, 4, 6**
2. Between 3.8 and 4: **2, 3, 9**
3. Between 8.9 and 9.1: **0, 3, 9**
4. Between 7.3 and 7.5: **4, 7, 5**
5. Between 6.2 and 6.4: **1, 3, 6**
6. Between 1.7 and 1.9: **8, 1, 9**
7. Between 8.6 and 8.8: **7, 8, 4**
8. Between 2.3 and 2.5: **6, 2, 4**
9. Between 5 and 5.1: **8, 0, 5**
10. Arrange the following digits to make the largest possible 3-digit number with 2-decimal places: **7, 4, 8**
11. Use the same digits to make the smallest 3-digit number with 2-decimal places.

O · t h

T O · t

Hot

Arrange all the digits to make a 4-digit number with 2-decimal places that meets the given criteria.

1. Between 23 and 25: **6, 9, 4, 2**
2. Between 29 and 31: **1, 0, 3, 5**
3. Between 52 and 54: **3, 7, 5, 8**
4. Between 15 and 17: **2, 6, 1, 3**
5. Between 97 and 99: **8, 0, 4, 9**
6. Between 61 and 63: **5, 3, 6, 2**
7. Between 43 and 45: **7, 4, 5, 4**
8. Between 71 and 73: **2, 7, 7, 4**
9. Between 81 and 83: **9, 8, 2, 8**
10. How many 4-digit numbers with 2-decimal places can you make using the following digits: **7, 5, 0, 3**
11. Arrange the following digits to make the largest 4-digit number with 2-decimal places possible: **3, 2, 8, 1**
12. Use the same digits to make the smallest 4-digit number with 2-decimal places.

T O · t h

15.01.21

Fab four - fluency

1. 3462 + 4783 =

2. 6832 - 2356 =

3. 226 x 3 = (use grid method)

4. 360 ÷ 9 =

Tenths and hundreths - fractions and decimals

0.6 = 6/10 = 60/100

0.06 = 6/100

0.31 = _____

_____ = 28/100

0.09 = _____

_____ = 4/10

1/100 = _____

I can convert fractions to decimals

Mild

$\frac{76}{100} = 0.76$

$\frac{49}{100} =$ _____

$\frac{20}{100} =$ _____

$\frac{80}{100} =$ _____

$\frac{66}{100} =$ _____

$\frac{14}{100} =$ _____

$\frac{84}{100} =$ _____

$\frac{16}{100} =$ _____

$\frac{30}{100} =$ _____

10. $\frac{70}{100} =$ _____
11. $\frac{44}{100} =$ _____
12. $\frac{90}{100} =$ _____
13. $\frac{42}{100} =$ _____
14. $\frac{21}{100} =$ _____
15. $\frac{65}{100} =$ _____
16. $\frac{76}{100} =$ _____
17. $\frac{81}{100} =$ _____
18. $\frac{25}{100} =$ _____

Spicy

1. $\frac{8}{100} = 0.08$
2. $\frac{40}{100} =$ _____
3. $\frac{29}{100} =$ _____
4. $\frac{45}{100} =$ _____
5. $\frac{20}{100} =$ _____
6. $\frac{7}{100} =$ _____
7. $\frac{99}{100} =$ _____
8. $\frac{33}{100} =$ _____
9. $\frac{50}{100} =$ _____
10. $\frac{70}{100} =$ _____
11. $\frac{24}{100} =$ _____
12. $\frac{48}{100} =$ _____
13. $\frac{9}{100} =$ _____
14. $\frac{65}{100} =$ _____
15. $\frac{22}{100} =$ _____
16. $\frac{69}{100} =$ _____
17. $\frac{76}{100} =$ _____
18. $\frac{82}{100} =$ _____
19. $\frac{25}{100} =$ _____
20. $\frac{65}{100} =$ _____

Hot

1. $\frac{160}{100} = 1.6$
2. $\frac{60}{100} =$ _____
3. $\frac{43}{100} =$ _____
4. $\frac{73}{100} =$ _____
5. $\frac{129}{100} =$ _____
6. $\frac{7}{100} =$ _____
7. $\frac{99}{100} =$ _____
8. $\frac{2}{10} =$ _____
9. $\frac{5}{50} =$ _____
10. $\frac{70}{100} =$ _____
11. $\frac{124}{100} =$ _____
12. $\frac{48}{100} =$ _____
13. $\frac{9}{100} =$ _____
14. $\frac{165}{100} =$ _____
15. $\frac{22}{50} =$ _____
16. $\frac{69}{100} =$ _____
17. $\frac{176}{100} =$ _____
18. $\frac{23}{100} =$ _____
19. $\frac{5}{10} =$ _____
20. $\frac{65}{100} =$ _____

Extension

Missing numbers 1

Fill in the gaps using the numbers.

$32 \div \square = 32$

$32 \div \square = 3.2$

$32 \div \square = 1$

$32 \div \square = \frac{32}{100}$

100 1 32 10

Missing numbers 2

Fill in the gaps using the numbers.

$4 \div \square = \frac{4}{10}$

$4 \div \square = 1$

$4 \div \square = 4$

$4 \div \square = 0.4$

1 4 10

Note: one number is used twice

Explain the mistakes 3

Mistake 1

$42 \div 10 = 4.20$

Mistake 2

$42 \div 10 = 0.42$

Mistake 3

$42 \div 10 = 4 \text{ r } 2$

$10\overline{)42}$ 4 r 2

True or false? 4

Which fraction(s) have been positioned correctly?