Year 5
Number and Place Value: Session 1

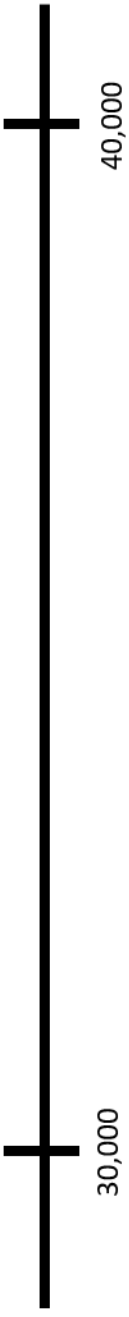
Counting Starter

Millions			Thousands			Ones			-ths	
100s	10s	1s	100s	10s	1s	100s	10s	1s		
								0 •	0	1
								0 •	1	
								1 •		
							1	0		
						1	0	0		
					1	0	0	0		
				1	0	0	0	0		
			1	0	0	0	0	0		
		1	0	0	0	0	0	0		
	1	0	0	0	0	0	0	0		

Year 5
Number and Place Value: Session 1

I do/ We do

37 614



81 571

Year 5
Number and Place Value: Session 1

Intelligent Practice

Represent each number:

12,035	47,506
51, 390	20, 817
73, 202	39,640

The digit in the ten thousands place is __. It has a value of ___.

The digit in the thousands place is __. It has a value of ___.

The digit in the hundreds place is a __. It has a value of ___.

The digit in the tens place is __. It has a value of ___.

The digit in the ones place is __. It has a value of ___.

Year 5
Number and Place Value: Session 1

Next Steps

What number is shown here?

30 + 9,000 + 500 + 70,000 = _____

Year 5
Number and Place Value: Session 2

Counting Starter

Millions			Thousands			Ones			-ths	
100s	10s	1s	100s	10s	1s	100s	10s	1s		
								0 •	0	1
								0 •	1	
								1 •		
							1	0		
						1	0	0		
					1	0	0	0		
				1	0	0	0	0		
			1	0	0	0	0	0		
		1	0	0	0	0	0	0		
	1	0	0	0	0	0	0	0		

Year 5
Number and Place Value: Session 2

I do / We do 1

Round 2 863 to the nearest ten

I do / We do 2

Round 2 863 to the nearest hundred

Year 5
Number and Place Value: Session 2

Intelligent Practice

Round each number to the nearest multiple of ten and hundred.

2,035	**7,506**
5, 390	**2, 817**
73, 202	**39,640**

I know that the ___ is in the ___ place.

The ___ represents ___ . It has a value of ___.

The previous multiple of ____ is ___.

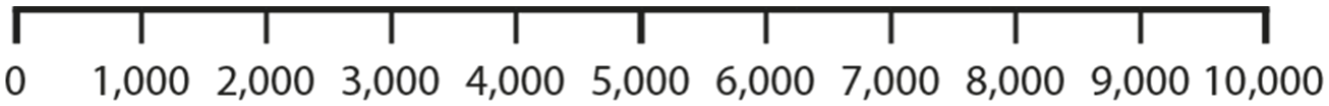
The next multiple of ___ is ___.

The mid point is ___.

Year 5
Number and Place Value: Session 2

Next Steps

Position 6,929 on the number line.



Round to the nearest ten.

Round to the nearest hundred.

Round to the nearest thousand.

Year 5
Number and Place Value: Session 3

Counting Starter

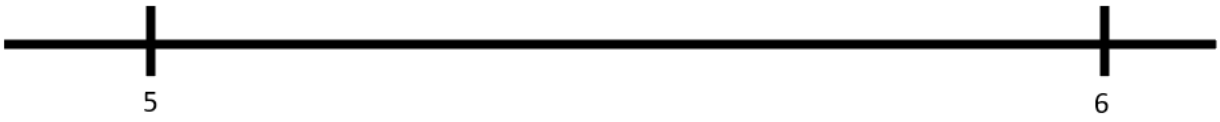
Count up and down in tenths.

0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2
2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3
3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4
4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5
5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6
6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7
7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8
8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9
9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10

Year 5
Number and Place Value: Session 3

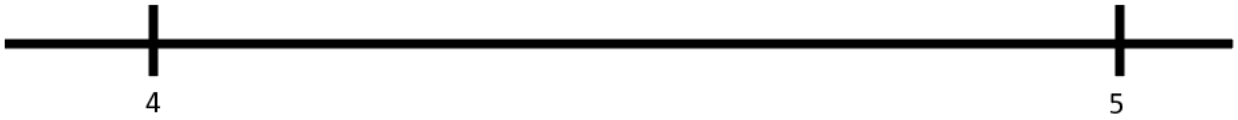
I do / We do 1

Round 5.7 to the nearest whole number



I do / We do 2

Round 4.63 to the nearest whole number



Year 5
Number and Place Value: Session 3

Intelligent Practice

Round each number to the nearest whole number.

6.8	3.61
1.2	7.18
9.5	4.84

I know that the ___ is in the ones place.

The ___ represents ___ . It has a value of ___.

The previous whole number is ___.

The next whole number is ___.

The mid point is ___.

Year 5
Number and Place Value: Session 3

Next Steps

Circle the two decimals that round to the **same** whole number.

3.2 **4.7** **5.9** **6.3** **7.9**

Year 5
Number and Place Value: Session 4

Counting Starter

Count up and down in hundredths.

0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.1
0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.2
0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.3
0.31	0.32	0.33	0.34	0.35	0.36	0.37	0.38	0.39	0.4
0.41	0.42	0.43	0.44	0.45	0.46	0.47	0.48	0.49	0.5
0.51	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.6
0.61	0.62	0.63	0.64	0.65	0.66	0.67	0.68	0.69	0.7
0.61	0.72	0.73	0.74	0.75	0.76	0.77	0.78	0.79	0.8
0.81	0.82	0.83	0.84	0.85	0.86	0.87	0.88	0.89	0.9
0.91	0.92	0.93	0.94	0.95	0.96	0.97	0.98	0.99	1

Year 5
Number and Place Value: Session 4

I do/We do 1

234 x 100 =

	10,000s	1,000s	100s	10s	1s
x10					
x100					

672 x 100 =

	10,000s	1,000s	100s	10s	1s
x10					
x100					

To multiply by 100, the digits all move ___ places to the ___

Year 5
Number and Place Value: Session 4

I do/We do 2

4500 ÷ 100 =

	10,000s	1,000s	100s	10s	1s
÷10					
÷ 100					

3200 ÷ 100 =

	10,000s	1,000s	100s	10s	1s
÷10					
÷ 100					

To divide by 100, the digits all move ___ places to the ___

Year 5
Number and Place Value: Session 4

Intelligent Practice

55 x 10 =	55 x 100 =
505 x 10 =	505 x 100 =
5050 x 10 =	5050 x 100 =

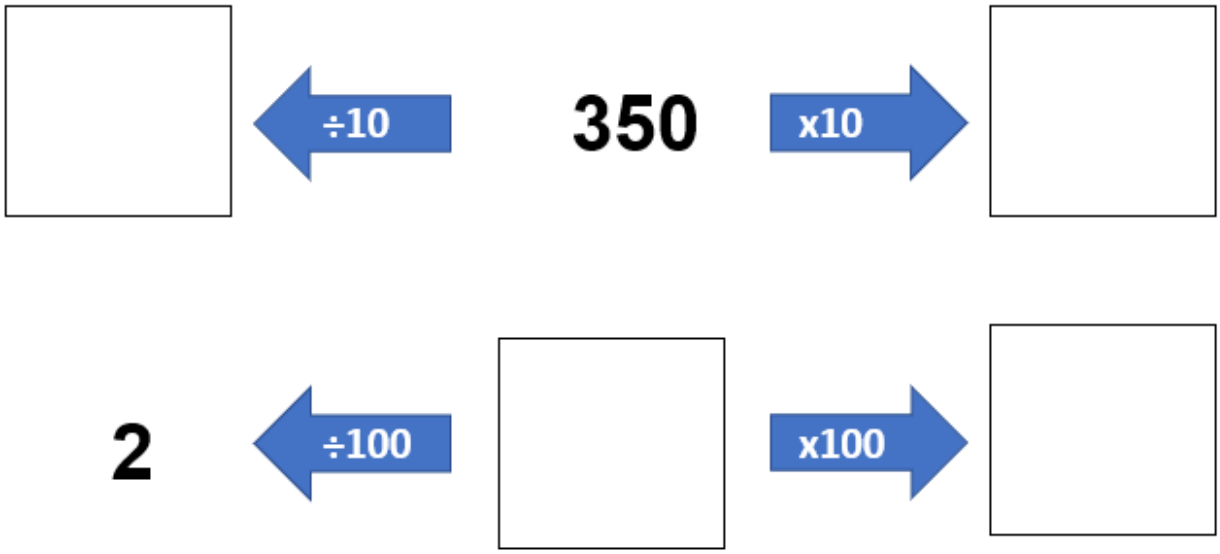
To multiply by 100, the digits all move ___ places to the ___

1,900 ÷ 10 =	1,900 ÷ 100 =
9,100 ÷ 10 =	9,100 ÷ 100 =
91,900 ÷ 10 =	91,900 ÷ 100 =

To divide by 100, the digits all move ___ places to the ___

Year 5
Number and Place Value: Session 4

Next Steps



Year 5
Addition and Subtraction: Session 1

I do/We do

Addition

1000s	100s	10s	1s

Subtraction

1000s	100s	10s	1s

Year 5
Addition and Subtraction: Session 1

Intelligent Practice

Solve the following number sentences using partitioning.

6011 + 3571 =

6918 - 2605 =

6818 - 2605 =

6012 + 3571 =

6928 - 2605 =

6011 + 3671 =

Year 5
Addition and Subtraction: Session 1

Next Steps

1,000—654 = 999—653

Explain why this is correct.

Why is this strategy more efficient?

Year 5
Addition and Subtraction: Session 2

Intelligent Practice

Solve the following number sentences using rounding and adjusting

8027 + 999 =	**8097 - 999 =**
8027 + 998 =	**8097 - 998 =**
8027 + 997 =	**8027 - 997 =**

I will round to the nearest 1000 by adding ___ .

I will then adjust by subtracting/adding ___.

Year 5
Addition and Subtraction: Session 2

Next Steps

Jackson is working out 4671 - 999.

He works out 4671 — 1000 = 3671.

He then works out 3671 - 1 = 3670.

His answer is 3670

What mistake has Jackson made?

How could you help him correct his answer?

Year 5
Addition and Subtraction: Session 3

I do/We do

Addition

10 000s	1000s	100s	10s	1s

Subtraction

10 000s	1000s	100s	10s	1s

Year 5
Addition and Subtraction: Session 3

Intelligent Practice

Solve the following number sentences using the formal column method.

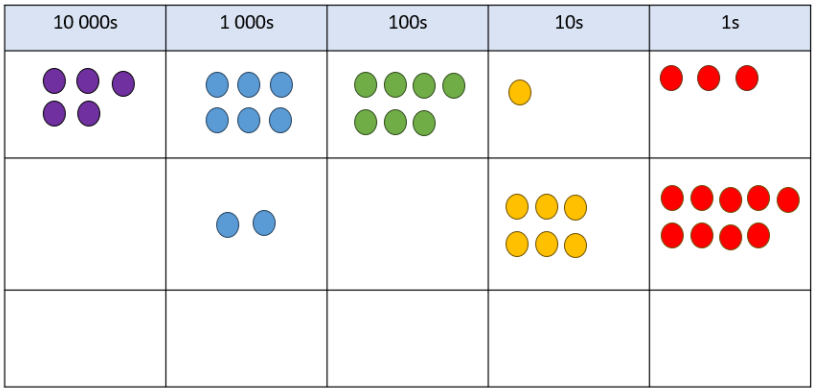
56 713 + 2 085 =	19 685 - 7254 =
56 813 + 2085 =	19 685 - 8254 =
56 713 + 2086 =	19 485 - 8254 =

Year 5
Addition and Subtraction: Session 3

Next Steps

56 713 + 2 069 =

What happens when you add 3 ones and 9 ones?



Can you use your place value knowledge to help you calculate the answer?

Year 5
Addition and Subtraction: Session 4

I do worded problem

Logan is playing a game. He has 3,324 points.

Then he scores another 999 points.

Logan's target is 6855 points.

How many more points does Logan need to reach his target?

We do worded problem

Logan is playing a game. He has 5,275 points.

Then he scores another 1,312 points.

Logan's target is 6600 points.

How many more points does Logan need to reach his target?

Year 5
Addition and Subtraction: Session 4

Intelligent Practice

Logan is playing a game. He has 5,275 points.

Then he loses 999 points.

Logan's target is 5000 points.

How many more points does Logan need to reach his target now?

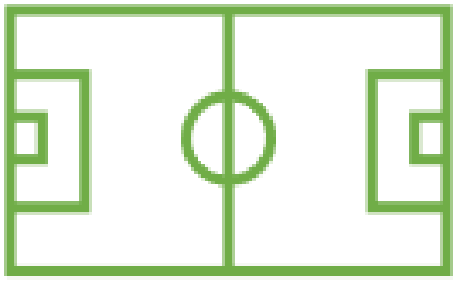
Year 5
Addition and Subtraction: Session 4

Next Steps

Logan is playing a game. He has 2,301 points.

Logan's friend has double the number of points.

How many points do they have altogether?



Year 5
Multiplication and Division: Session 1

Counting Starter

x	2	3	4	5	10
2					
3					
4					
5					
10					

x	10	3	5	2	4
5					
3					
2					
10					
4					

Year 5
Multiplication and Division: Session 1

Derivation Board Example

Fact Family

7 x 8 = 56

8 x 7 = 56

56 ÷ 7 = 8

56 ÷ 8 = 7

Nearby

8 x 8 = 64

6 x 8 = 48

Equivalent

7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 = 56

8 + 8 + 8 + 8 + 8 + 8 + 8 = 56

7 x 4 + 7 x 4 = 56

7 x 5 + 7 x 3 = 56

5 x 8 + 2 x 8 = 56

If I know....

7 x 8 = 56

Then I know...

Array

Place Value

7 x 80 = 560

70 x 8 = 560

70 x 80 = 5600

700 x 8 = 5600

0.7 x 8 = 5.6

56000 ÷ 7 = 800

Year 5
Multiplication and Division: Session 1

Intelligent Practice

Complete a derivation board for the questions below:

9 x 8 = 72

6 x 7 = 42

96 ÷ 8 = 12

49 ÷ 7 = 7

Year 5
Multiplication and Division: Session 1

Next Steps

Use a card to complete each calculation.

0.8	8	80	800	8000

32 = 4 x ___

3 200 = 4 x ___

3.2 = 4 x ___

320 ÷ ___ = 4

Year 5
Multiplication and Division: Session 2

Counting Starter

The missing factors are 2, 3, 4, 5 and 10.

Can you complete the grid?

x					
		20		100	
			12	30	
	10				
				50	15
			16		

Year 5
Multiplication and Division: Session 2

Intelligent Practice

3 digit x 1 digit (no regrouping)

124 x 2 =

402 x 2 =

312 x 3 =

320 x 3 =

3-digit x 1 digit (with regrouping)

124 x 3 =

142 x 3 =

421 x 3 =

465 x 2 =

Year 5
Multiplication and Division: Session 2

Next Steps

321 x 3 = 963

Without calculating, which is greater?

321 x 4 or 322 x 3?

Explain your answer.

Year 5
Multiplication and Division: Session 3

Counting Starter

We have used 1, 10, 5 derive to fill in 1x, 10x and 5x for you. How can you use these facts to help you complete the times table grid?

x	1	2	3	4	5	6	7	8	9	10	11	12
6	6				30					60		
7	7				35					70		
8	8				40					80		

How will you use your known facts to complete the following times table grid efficiently?

x	3	6	12	9	1	4	8	5	10	11	2	7
6												
7												
8												

Year 5
Multiplication and Division: Session 3

Intelligent Practice

2 digit ÷ 1 (no remainder)

48 ÷ 3 =

51÷ 3 =

63 ÷ 3=

I will share the tens/ones into groups of ____.

I have ___ groups of ____

2 digit ÷ 1 (with remainder)

47 ÷ 3 =

50 ÷ 3 =

64 ÷ 3 =

I will share the tens/ ones into groups of ____.

I have ___ groups of ____ and ___ remainder.

Year 5
Multiplication and Division: Session 3

Next Steps

Write <, > or = to compare the calculations.

$95 \div 5$ ◯ $95 \div 3$

$76 \div 4$ ◯ $94 \div 4$

$88 \div 4$ ◯ $44 \div 2$

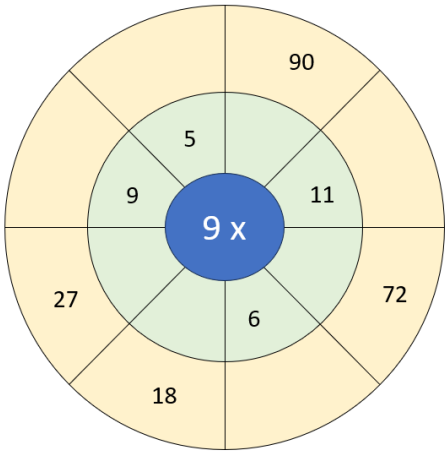
Can you make a prediction before calculating?

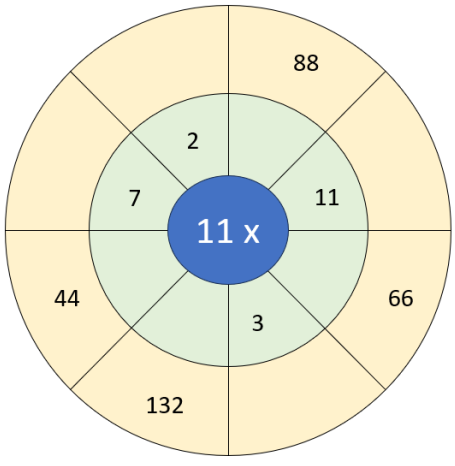
Year 5
Multiplication and Division: Session 4

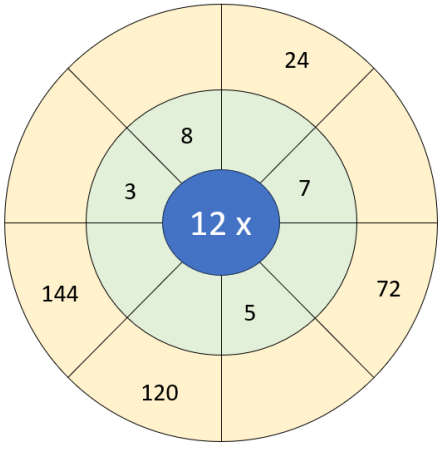
Counting Starter

We have used 1, 10, 5 derive to fill in 1x, 10x and 5x for you. How can you use these facts to help you complete the times table grid?

x	1	2	3	4	5	6	7	8	9	10	11	12
9	9				45					90		
11	11				55					110		
12	12				60					120		



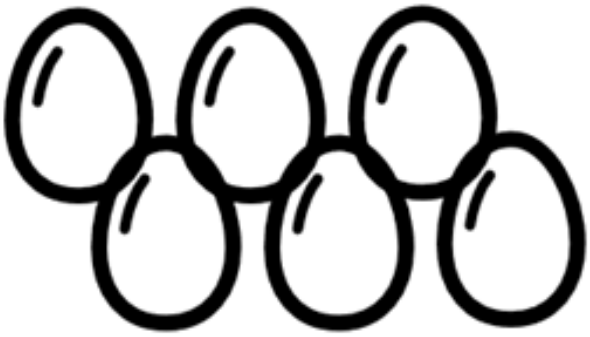




Year 5
Multiplication and Division: Session 4

Intelligent Practice

A farmer has 157 eggs.



He stores them in trays.

Each tray holds 6 eggs.

1. How many full trays of eggs can the farmer fill?
2. How many eggs will be left over?
3. How many trays will he need to hold **all** of the eggs?

Year 5
Multiplication and Division: Session 4

Next Steps

6 children can sit on one picnic bench.

There are 134 children.

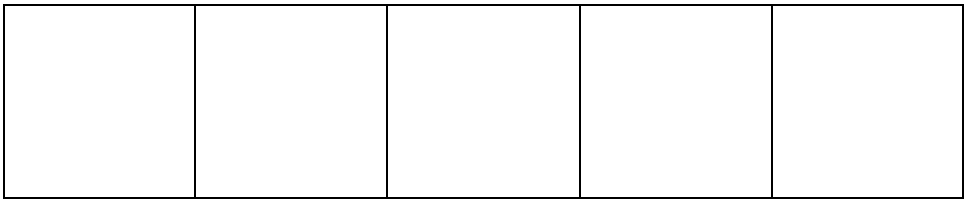
How many picnic benches are needed so each child can sit down?

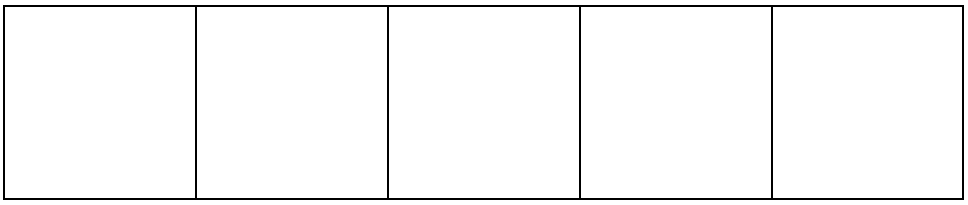
Morgan has worked out the answer to the question as 22 picnic benches.

Agree or disagree?

Year 5
Fractions: Session 1

Counting Starter

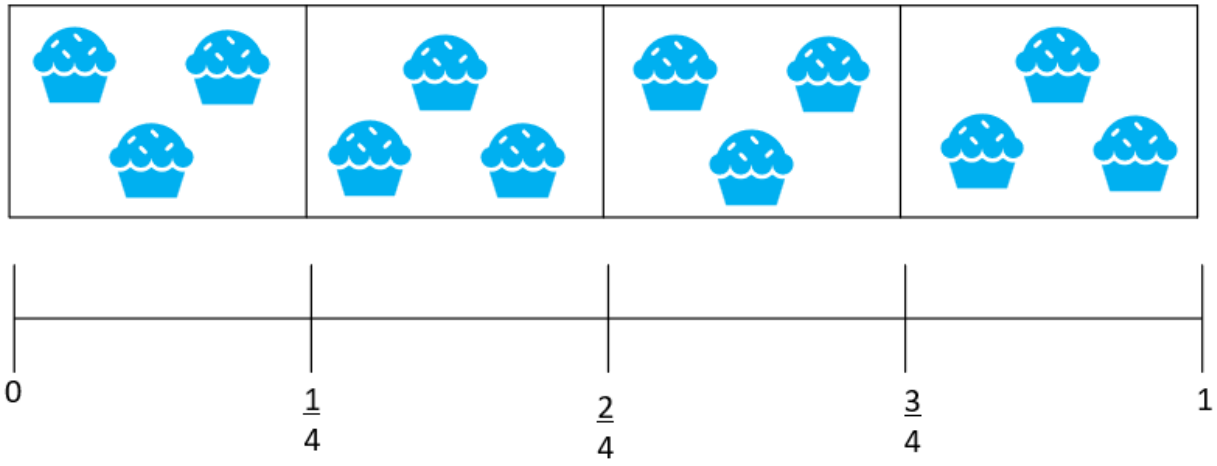


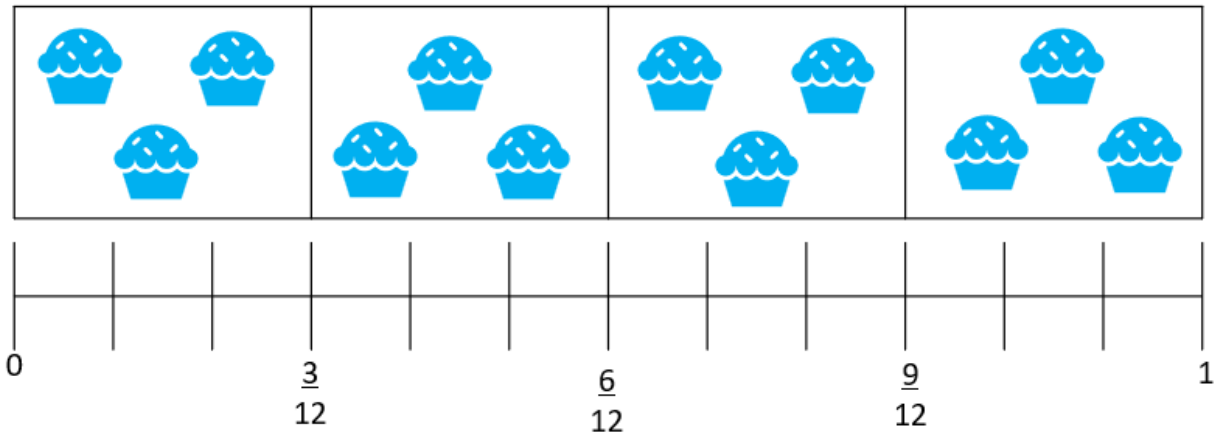


1 whole = 1.0 = 100%				
$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$
0.2	0.2	0.2	0.2	0.2
20%	20%	20%	20%	20%

Year 5
Fractions: Session 1

I do/ We do 1

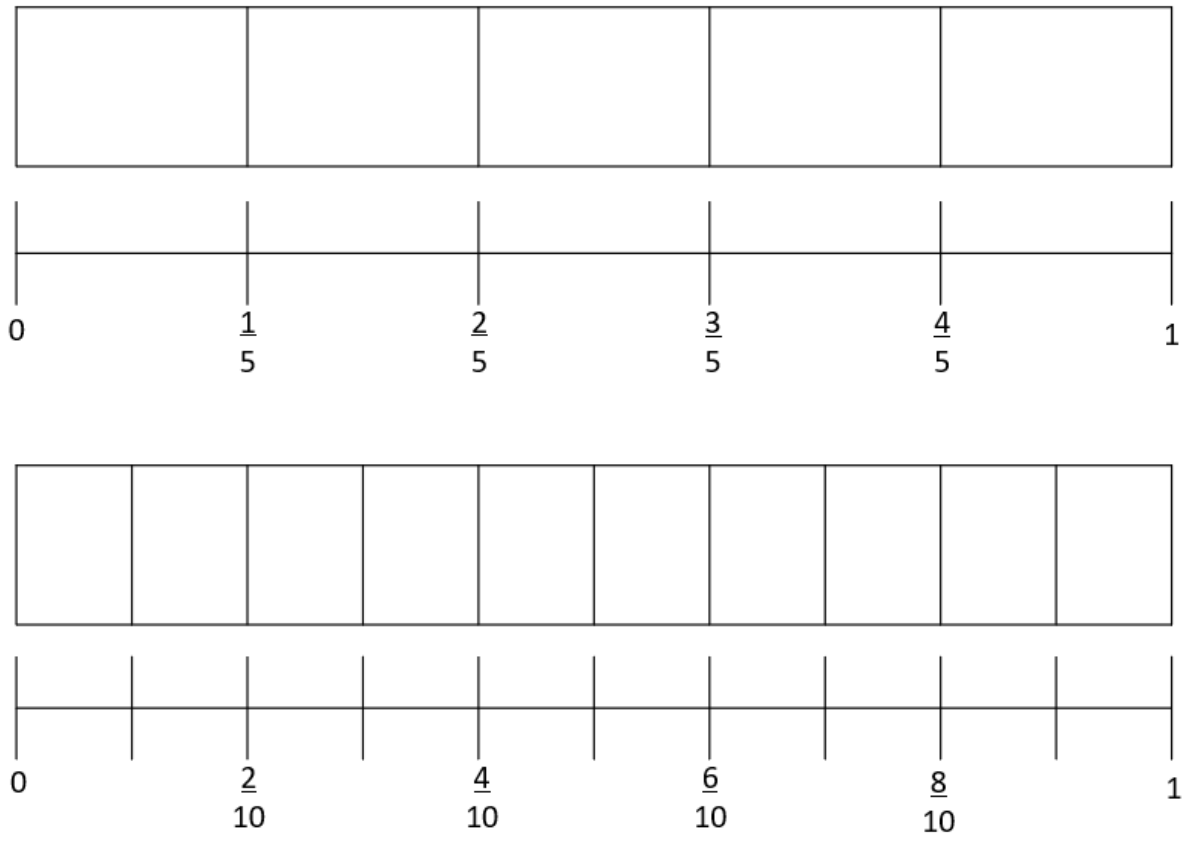




The numerator has been multiplied by ___, so if the denominator is multiplied by ____, then the fractions will be equivalent.

Year 5
Fractions: Session 1

I do/ We do 2



The numerator has been multiplied by ___, so if the denominator is multiplied by ____, then the fractions will be equivalent.

Year 5
Fractions: Session 1

Intelligent Practice

Can you draw a bar model and/or a number line to prove that these fractions are equivalent?

$\frac{1}{2} = \frac{4}{8}$	$\frac{2}{3} = \frac{8}{12}$
$\frac{3}{4} = \frac{12}{16}$	$\frac{3}{8} = \frac{6}{16}$

The numerator has been multiplied by ___, so if the denominator is multiplied by ____, then the fractions will be equivalent.

Year 5
Fractions: Session 1

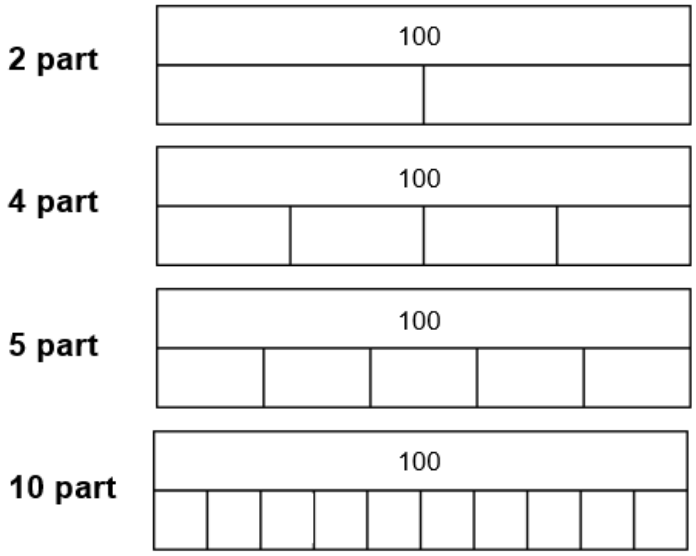
Next Steps

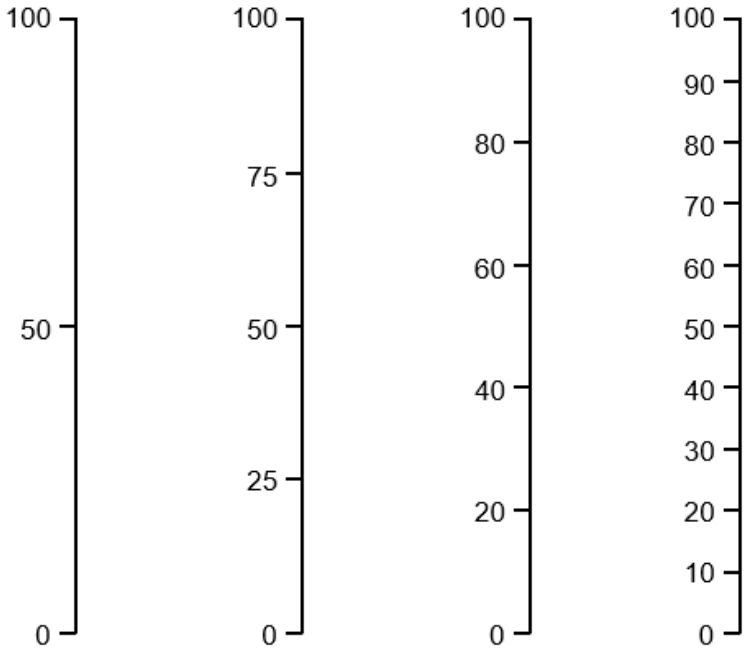
Write the two missing values to make these equivalent fractions correct.

$$\frac{\square}{5} = \frac{6}{10} = \frac{12}{\square}$$

Year 5
Fractions: Session 2

Counting Starter





Year 5
Fractions: Session 2

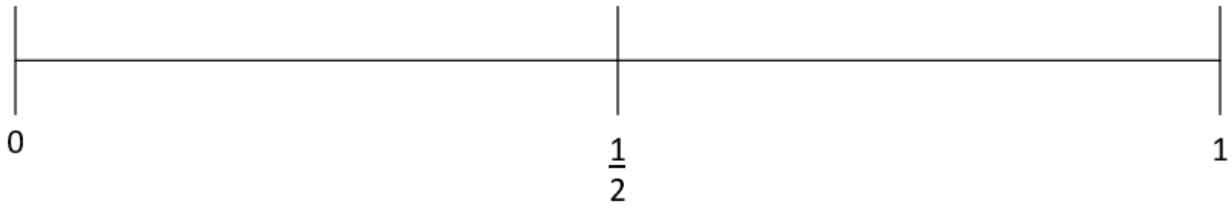
Intelligent Practice

Put these fractions in **descending** order:

$$\frac{1}{3} \qquad \frac{3}{24} \qquad \frac{5}{6} \qquad \frac{6}{12}$$

Challenge:

Can you place the fractions on this number line?



Year 5
Fractions: Session 2

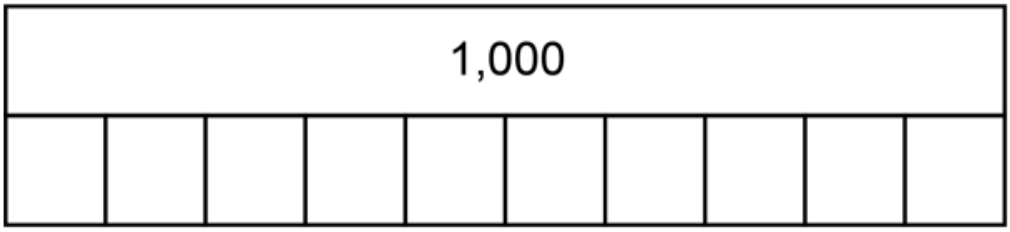
Next Steps

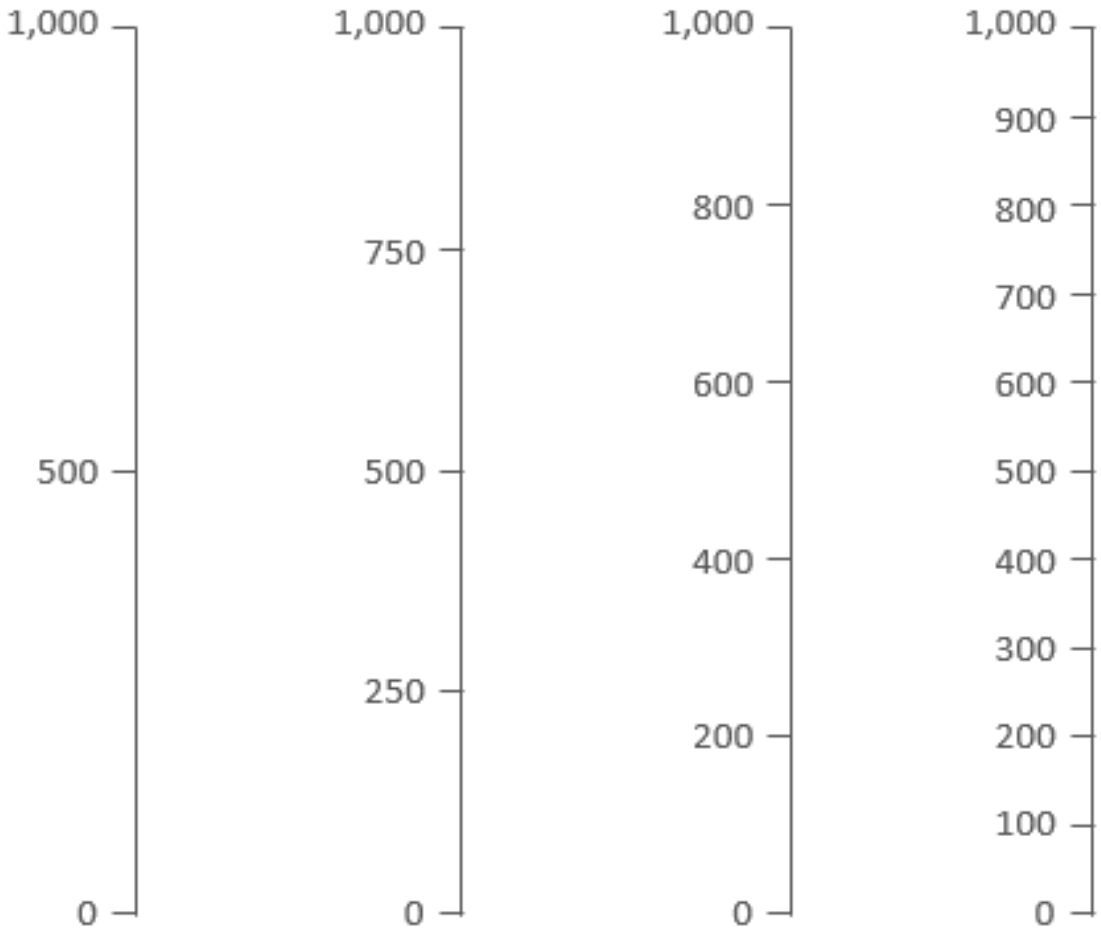
Write two **different** fractions that are greater than $\frac{1}{2}$ but less than 1

$\square/\square$ and $\square/\square$

Year 5
Fractions: Session 3

Counting Starter





Year 5
Fractions: Session 3

Intelligent Practice

Adding fractions

$\frac{6}{8} + \frac{4}{8} =$

$\frac{3}{4} + \frac{3}{4} =$

$\frac{5}{7} + \frac{3}{7} =$

$\frac{5}{6} + \frac{4}{6} =$

Subtracting fractions

$\frac{10}{8} - \frac{4}{8} =$

$\frac{5}{4} - \frac{2}{4} =$

$\frac{12}{7} - \frac{6}{7} =$

$\frac{7}{6} - \frac{5}{6} =$

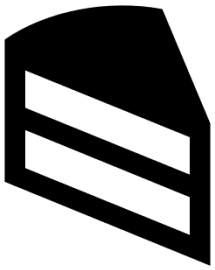
Year 5
Fractions: Session 3

Next Steps

Reeves buys two cakes and cuts each one into 8 equal pieces.

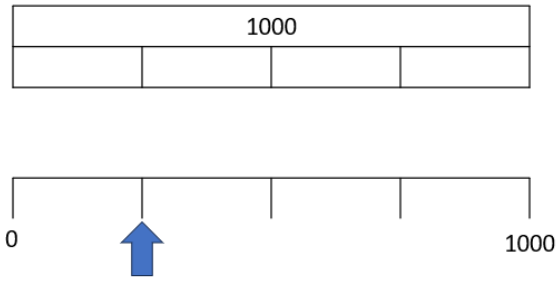
Reeves eats $\frac{5}{8}$ and Greg eats $\frac{4}{8}$.

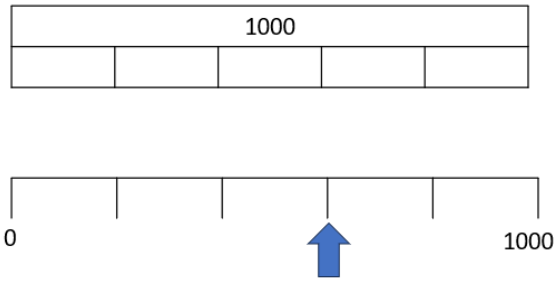
What fraction of the two cakes is left?

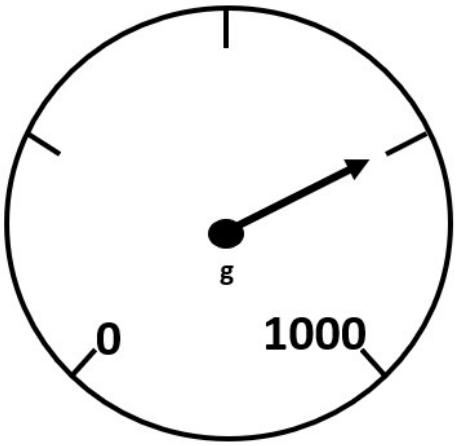


Year 5
Fractions: Session 4

Counting Starter







If 1000 is shared into ___ equal parts,

then each part is worth ____.

Year 5
Fractions: Session 4

Intelligent Practice

Adding fractions

$\frac{5}{8} + \frac{1}{4} =$ $\frac{2}{3} + \frac{2}{9} =$

$\frac{11}{30} + \frac{6}{10} =$ $\frac{3}{5} + \frac{5}{20} =$

Subtracting fractions

$\frac{7}{8} - \frac{1}{4} =$ $\frac{3}{4} - \frac{1}{2} =$

$\frac{24}{30} - \frac{6}{10} =$ $\frac{5}{6} - \frac{5}{12} =$

The denominator has been multiplied by ___ , so to make the equivalent fraction, multiply the numerator by ___.

When fractions have the same _____ , to add/subtract them I just add/subtract the _____.

Year 5
Fractions: Session 3

Next Steps

$$\frac{1}{4} + \frac{2}{[\,?\,]} = \frac{[\,?\,]}{20}$$