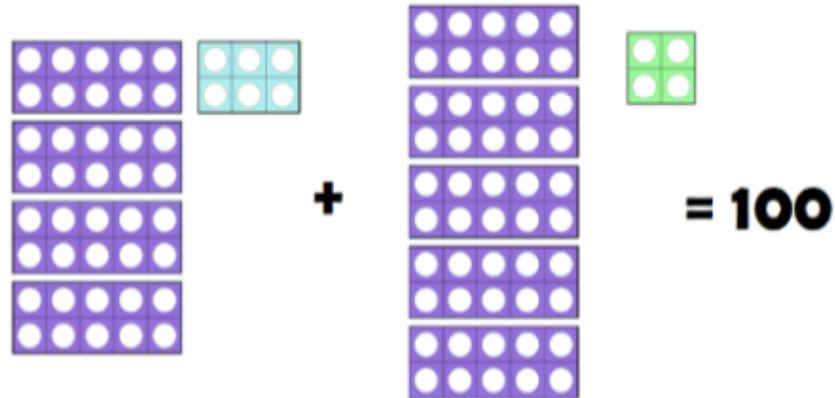
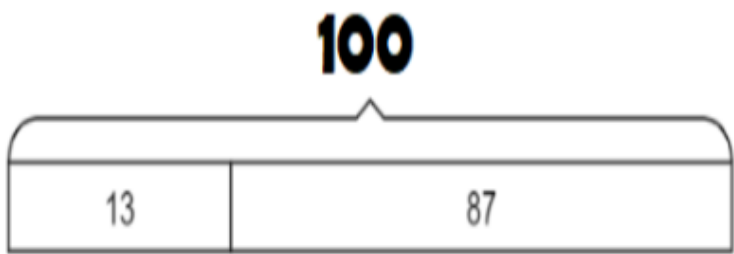


# Year 4 - Autumn 1 - KIRF - Number Bonds to 100

Number bonds show us how numbers join together. They are very important for addition and subtraction. This half term, the children will be learning number bonds of 100. They should be able to recall these independently.

**What can this look like?**

**Concrete:**  **= 100**

**Pictorial:**  **100**

**Abstract:**  $49 + \bigcirc = 100$   
 $100 - \bigcirc = 72.$

The children should know number bonds to 100. Some of these may include:

$60 + 40 = 100$	$37 + 63 = 100$
$40 + 60 = 100$	$63 + 37 = 100$
$100 - 40 = 60$	$100 - 63 = 37$
$100 - 60 = 40$	$100 - 37 = 63$
$75 + 25 = 100$	$48 + 52 = 100$
$25 + 75 = 100$	$52 + 48 = 100$
$100 - 25 = 75$	$100 - 52 = 48$
$100 - 75 = 25$	$100 - 48 = 52$

## Key vocabulary

**25 add 75 equals 100**

**55 plus 45 is the same as 100**

**100 take away 6 equals 94**

**100 subtract 37 makes 63**

**The difference between 91 and 100 is 9**

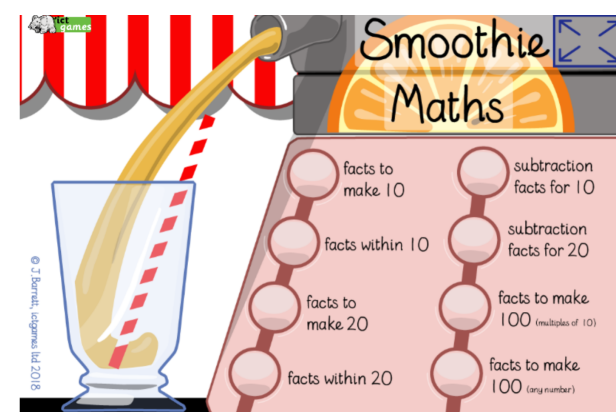
## Things to Try at Home

Chants - Practice chanting the number bonds.

Everyday objects - Gather together objects and separate them in as many different ways as possible, write the calculation to match each on.

Make a poster - We use lots of concrete, pictorial and abstract methods in school. Your child could make a poster showing different methods to make the number bonds to 100.

Use your number bonds to 10 - Think about your number bonds to 10 and how they might help you. E.g.  $4+6=10$  therefore  $40+60 = 100$ .



## Questions to ask at home

What do we need to add to 70 to make 100?

If I have 36, how many more do I need to get to 100?

What is the difference between 100 and 74?



# Year 4 - Autumn 2 - KIRF - 6 & 9 Times Tables

A times table is a list of multiples of a given number. They are very important for many calculations. This half term, the children will be learning their 6 and 9 times table including the division facts.

## What can this look like?

Concrete:

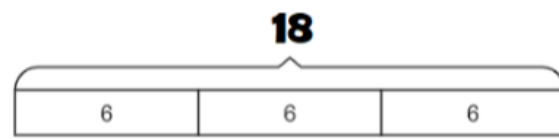


$$6 \times 2 = 12$$

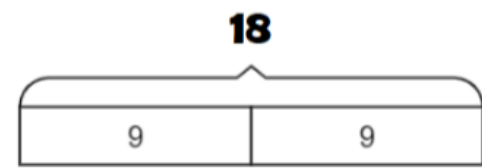
$$6 \times \bigcirc = 24$$

$$\bigcirc \div 9 = 3$$

Pictorial:



18



18

Abstract:

Six multiplied by \_\_\_\_ is equal to thirty

Nine multiplied by \_\_\_\_ is equal to thirty six

## Key vocabulary

9 multiplied by 3 is equal to 27

2 times 6 and 6 times 2 are equivalent

54 shared by 6 is equal to 9

72 divided by 9 equals 8

## Questions to ask at home

What is 6 multiplied by 7?

What is 9 times 8?

What is 54 divided by 9?

## Things to Try at Home

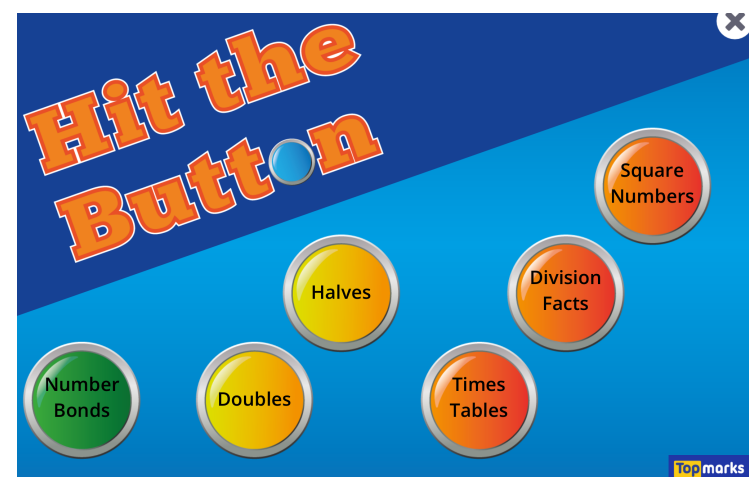
Chants - Practice chanting the times table.

Double your 3's (for your 6's) -  $3 \times 4 = 12$  double 12 equals 24. So  $6 \times 4 = 24$ .

Use 10 times tables (for your 9's) - Multiply a number by 10 then subtract off the original number.

E.g.  $7 \times 10 = 70$  subtract off the original number  $70 - 7 = 63$  so  $9 \times 7 = 63$ .

## Online Activities



$1 \times 6 = 6$	$6 \div 6 = 1$	$9 \times 1 = 9$	$9 \div 9 = 1$
$2 \times 6 = 12$	$12 \div 6 = 2$	$9 \times 2 = 18$	$18 \div 9 = 2$
$3 \times 6 = 18$	$18 \div 6 = 3$	$9 \times 3 = 27$	$27 \div 9 = 3$
$4 \times 6 = 24$	$24 \div 6 = 4$	$9 \times 4 = 36$	$36 \div 9 = 4$
$5 \times 6 = 30$	$30 \div 6 = 5$	$9 \times 5 = 45$	$45 \div 9 = 5$
$6 \times 6 = 36$	$36 \div 6 = 6$	$9 \times 6 = 54$	$54 \div 9 = 6$
$7 \times 6 = 42$	$42 \div 6 = 7$	$9 \times 7 = 63$	$63 \div 9 = 7$
$8 \times 6 = 48$	$48 \div 6 = 8$	$9 \times 8 = 72$	$72 \div 9 = 8$
$9 \times 6 = 54$	$54 \div 6 = 9$	$9 \times 9 = 81$	$81 \div 9 = 9$
$10 \times 6 = 60$	$60 \div 6 = 10$	$9 \times 10 = 90$	$90 \div 9 = 10$
$11 \times 6 = 66$	$66 \div 6 = 11$	$9 \times 11 = 99$	$99 \div 9 = 11$
$12 \times 6 = 72$	$72 \div 6 = 12$	$9 \times 12 = 108$	$108 \div 9 = 12$



# Year 4 - Spring 1 - KIRF - 7 & 11 Times Table

A times table is a list of multiples of a given number. They are very important for many calculations. This half term, the children will be learning their 7 and 11 times table including the division facts.

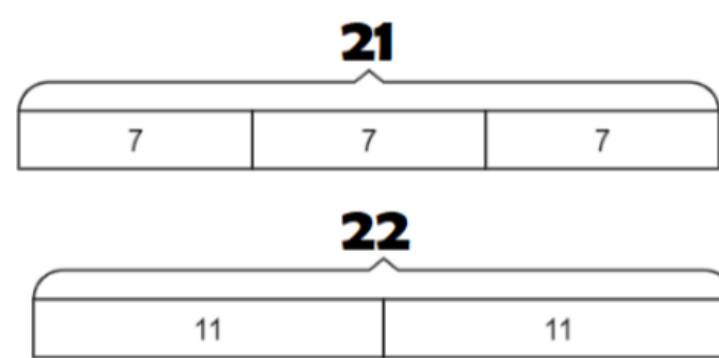
## What can this look like?

Concrete:



$$11 \times 2 = 22$$

Pictorial:



Abstract:

$$7 \times \bigcirc = 56$$

$$\bigcirc \div 11 = 12$$

Seven multiplied by \_\_\_\_ is equal to twenty eight

Sixty six divided by \_\_\_\_ is equal to six

## Key vocabulary

7 multiplied by 3 is equal to 21

11 times 6 and 6 times 11 are equivalent

42 shared by 7 is equal to 6

121 divided by 11 equals 11

## Questions to ask at home

What is 7 multiplied by 5?

What is 11 times 8?

What is 63 divided by 7?

## Things to Try at Home

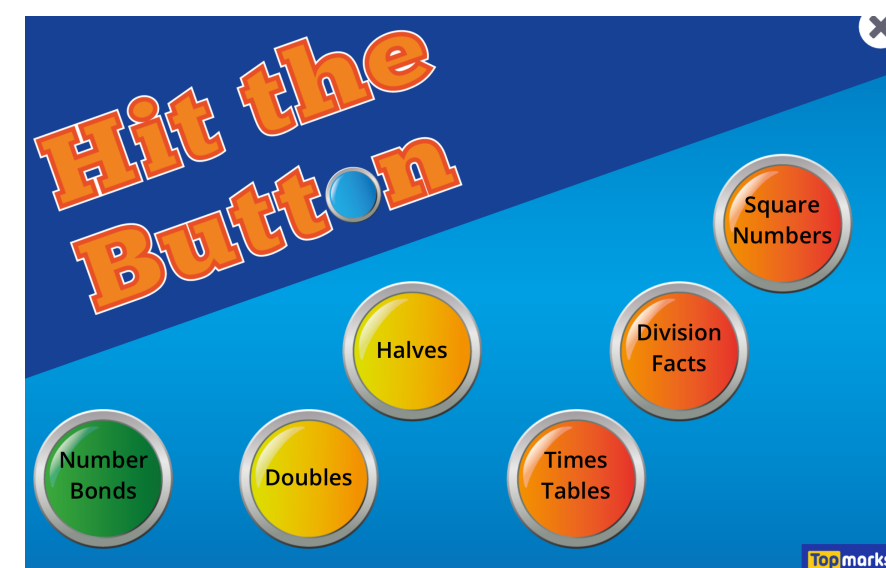
Chants - Practice chanting the times table.

Look for patterns - The 11 times table follows a pattern. Can you spot it?

Use your other times tables - You've already learnt most of your other times tables. All of these included your 7's and 11's. Use them to help.



## Online Activities



$1 \times 7 = 7$	$7 \div 7 = 1$	$11 \times 1 = 11$	$11 \div 11 = 1$
$2 \times 7 = 14$	$14 \div 7 = 2$	$11 \times 2 = 22$	$22 \div 11 = 2$
$3 \times 7 = 21$	$21 \div 7 = 3$	$11 \times 3 = 33$	$33 \div 11 = 3$
$4 \times 7 = 28$	$28 \div 7 = 4$	$11 \times 4 = 44$	$44 \div 11 = 4$
$5 \times 7 = 35$	$35 \div 7 = 5$	$11 \times 5 = 55$	$55 \div 11 = 5$
$6 \times 7 = 42$	$42 \div 7 = 6$	$11 \times 6 = 66$	$66 \div 11 = 6$
$7 \times 7 = 49$	$49 \div 7 = 7$	$11 \times 7 = 77$	$77 \div 11 = 7$
$8 \times 7 = 56$	$56 \div 7 = 8$	$11 \times 8 = 88$	$88 \div 11 = 8$
$9 \times 7 = 63$	$63 \div 7 = 9$	$11 \times 9 = 99$	$99 \div 11 = 9$
$10 \times 7 = 70$	$70 \div 7 = 10$	$11 \times 10 = 110$	$110 \div 11 = 10$
$11 \times 7 = 77$	$77 \div 7 = 11$	$11 \times 11 = 121$	$121 \div 11 = 11$
$12 \times 7 = 84$	$84 \div 7 = 12$	$11 \times 12 = 132$	$132 \div 11 = 12$




# Year 4 - Spring 2 - KIRF - All Times Table Facts

A times table is a list of multiples of the given number. They are very important for many calculations. This half term, the children will be learning all of their times table including the division facts up to 12x12.

**What can this look like?**

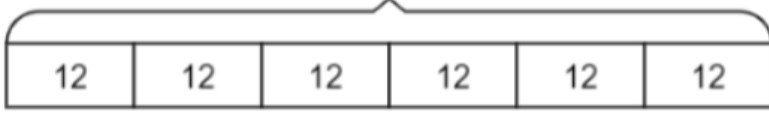
Concrete:



$12 \times 2 = 24$

Pictorial:

**72**



Abstract:

Twelve multiplied by \_\_\_\_ is equal to sixty  
 \_\_\_\_ divided by eight is equal to twelve

$12 \times \bigcirc = 72$   
 $\bigcirc \div 12 = 5$

**Key vocabulary**

12 multiplied by 6 is equal to 72

12 times 4 and 4 times 12 are equivalent

120 shared by 12 is equal to 10

132 divided by 12 equals 11

**Questions to ask at home**

What is 12 multiplied by 6?

What is 12 times 8?

What is 84 divided by 12?

X	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144

**Things to Try at Home**

Chants - Practice Chanting the times table.

Speed Challenge - Take two packs of playing cards and remove the Kings. Shuffle the pack and turn over two cards and ask you child to multiply the numbers together (Ace = 1, Jack = 11, Queen = 12) . How many questions can they answer in 2 minutes? Practice regularly to see if they can beat their high score.


**Online Activities**

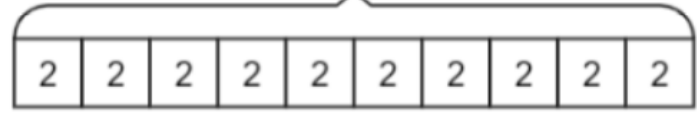


# Year 4 - Summer 1 - Multiply and divide by 10 & 100

This half term, the children will be learning how to multiply and divide a single digit by 10 and 100. The aim is for them to be able to recall these fact instantly

**What can this look like?**

Concrete:  
  
 $10 \times 3 = 30$

Pictorial:  
 20  
  
 $2 \times 10 = 20$

Abstract:  
 $8 \times \bigcirc = 800$   
 $\bigcirc \div 10 = 0.5$

**Key vocabulary**

7 multiplied by 100 is equal to 700  
 120 shared by 10 is equal to 1.2  
 132 divided by 12 equals 11  
 0.6 is zero ones and six tenths

**Questions to ask at home**

What is 5 multiplied by 10?  
 What is 10 times 0.8?  
 What is 800 divided by 100?

**Some examples of questions**

$7 \times 10 = 70$	$30 \times 10 = 300$	$0.8 \times 10 = 8$
$10 \times 7 = 70$	$10 \times 30 = 300$	$10 \times 0.8 = 8$
$70 \div 7 = 10$	$300 \div 30 = 10$	$8 \div 0.8 = 10$
$70 \div 10 = 7$	$300 \div 10 = 30$	$8 \div 10 = 0.8$
$6 \times 100 = 600$	$40 \times 100 = 4000$	$0.2 \times 10 = 2$
$100 \times 6 = 600$	$100 \times 40 = 4000$	$10 \times 0.2 = 2$
$600 \div 6 = 100$	$4000 \div 40 = 100$	$2 \div 0.2 = 10$
$600 \div 100 = 6$	$4000 \div 100 = 40$	$2 \div 10 = 0.2$

## Things to Try at Home

Draw a Place Value Chart - Remember when multiplying, the digits move to the left. When dividing, the digits move to the right.

1000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$
				.		
				.		
				.		
				.		

## Online Activities



BINGO  $\times$  or  $\div$   
 10 or 100

times and divide by 10 (1000) **Play**  
 times and divide by 10 or 100 (10000) **Play**  
 times and divide by 10 or 100 (decimals) **Play**



# Year 4 - Summer 2 - KIRF - Time - Equivalent Fractions

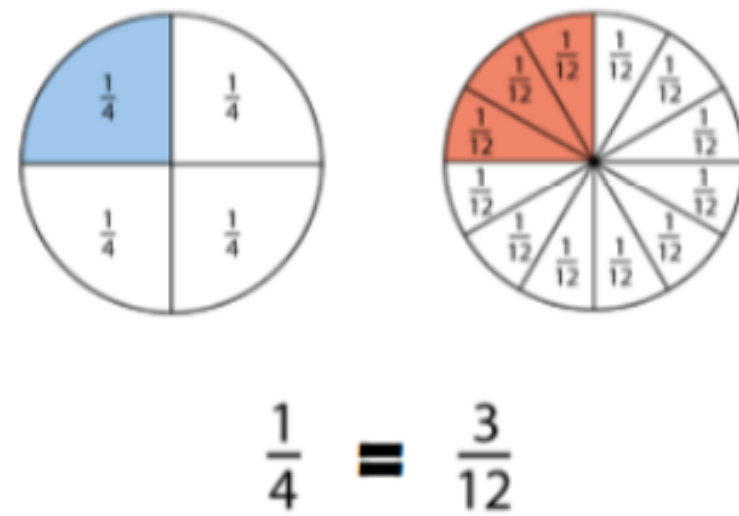
When two fractions have different numerator and denominators to one another but share the same numerical value, they are called equivalent fractions. The aim is to be able to recall some of these instantly.

## What can this look like? –

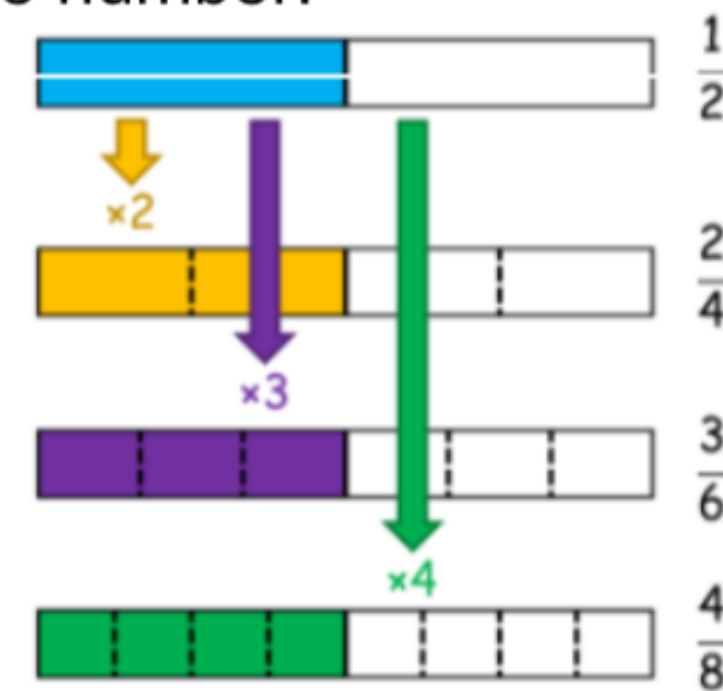
### Concrete:



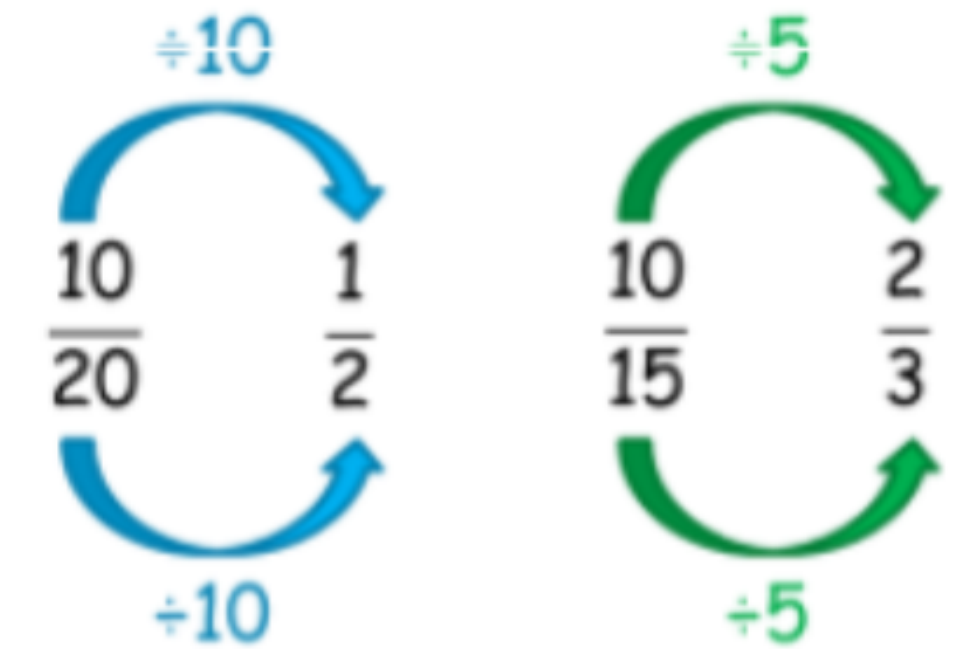
### Pictorial:



You can find equivalent fractions quickly by multiplying the numerator & denominator by the same number.

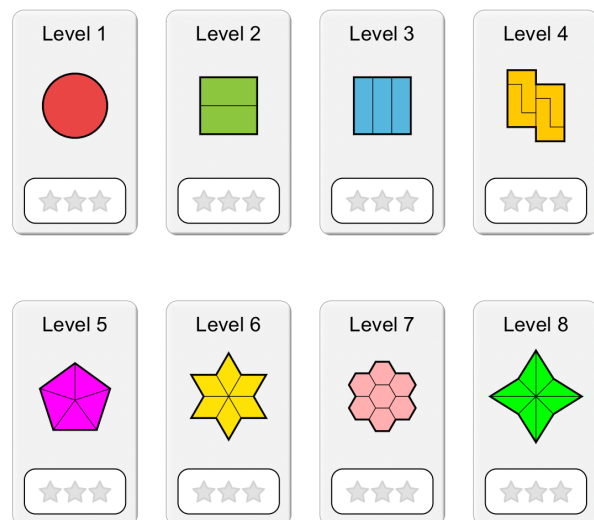


You can cancel a fraction to its simplest form by dividing the numerator and denominator by the same amount.



## Online Activities

Choose Your Level!



## Questions to ask at home

What is an **equivalent fraction** to  $\frac{1}{2}$  ?

Is  $\frac{2}{4}$  **equivalent** to  $\frac{1}{2}$  ?

What is an **equivalent fraction** to  $\frac{1}{3}$  ?

What is an **equivalent fraction** to  $\frac{1}{5}$  ?

## Use a fraction wall to help

