Fractions
Learning From Home Maths Activity Booklet

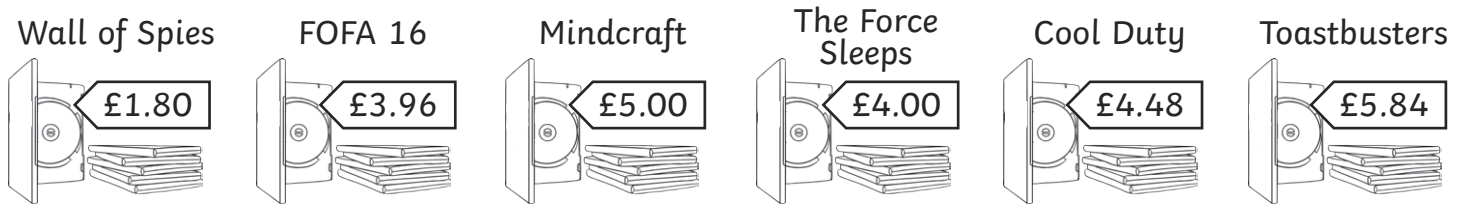CLANK!

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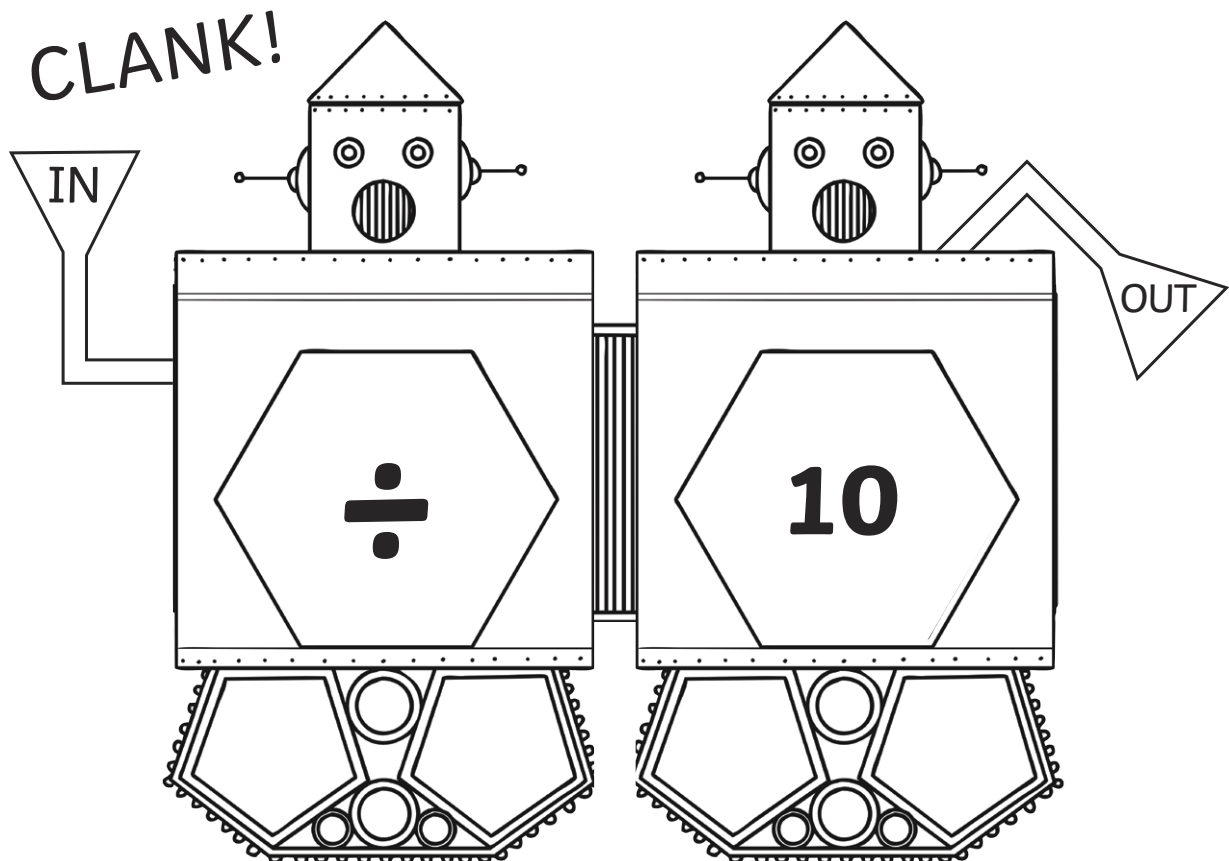
Year 4 Measure and Money Problems

Solve simple measure and money problems involving fractions and decimals to two decimal places.

All games have the full price on the tag. If you buy the game second-hand, it costs $\frac{1}{2}$ of the full price. If you buy two or if you buy two or more second-hand games you can get each of them for a $\frac{1}{4}$ of the price. All new games are full price.

Game Shop

Use the information to answer the following questions.

Wall of Spies	FOFA 16	Mindcraft	The Force Sleeps	Cool Duty	Toastbusters
£1.80	£3.96	£5.00	£4.00	£4.48	£5.84

1. How much would it cost to buy a second-hand copy of The Force Sleeps?

_____

2. What would the total cost of buying Mindcraft and The Force Sleeps second hand?

_____

_____

_____

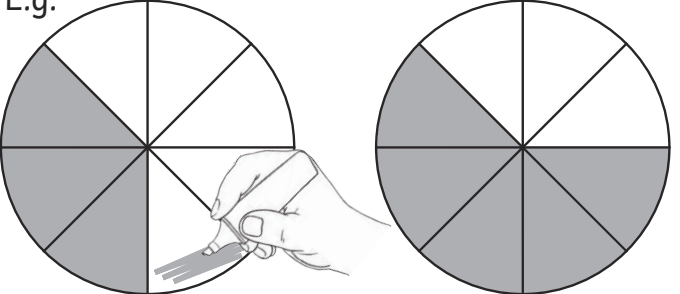3. How much would it be to buy new versions of both Cool Duty and Toastbusters?
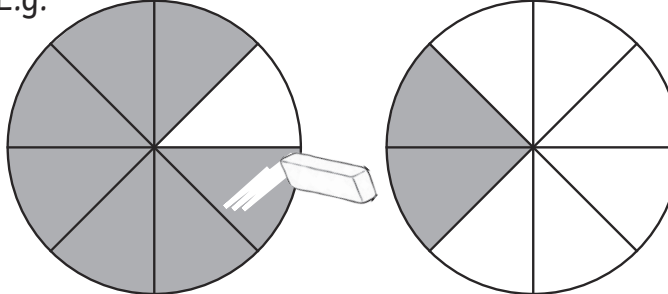
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4. How much would you pay to buy second-hand copies of Wall of Spies and FOFA 16?
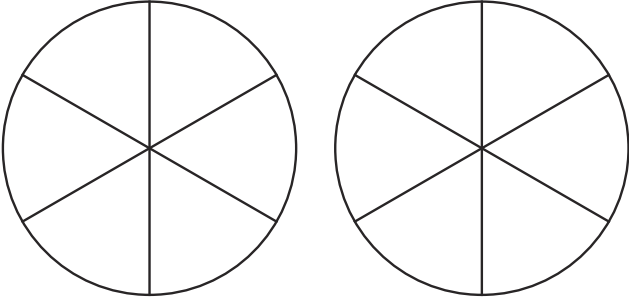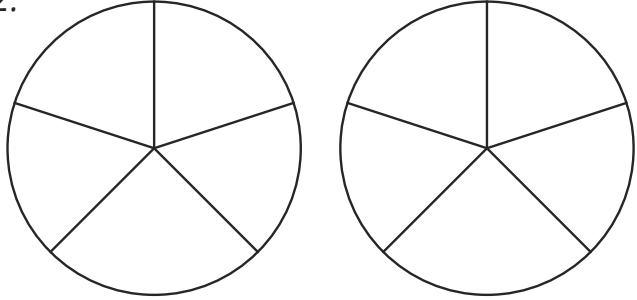
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5. What would the cost be for a new copy of Toastbusters and second-hand copies of Toastbusters and The Force Sleeps?
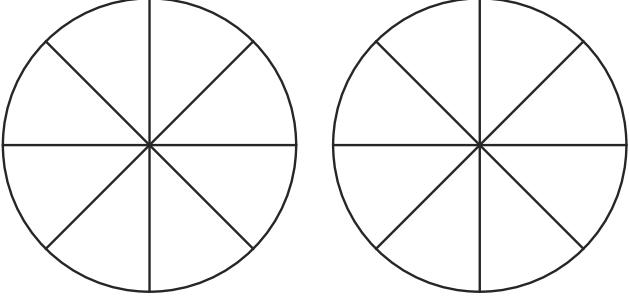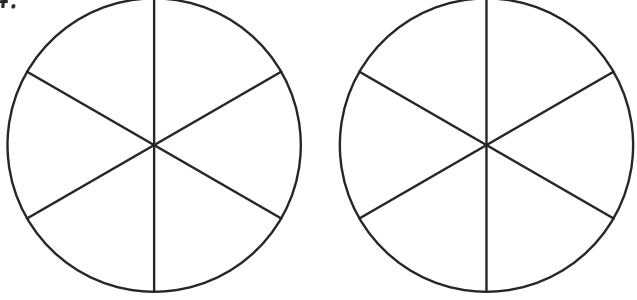
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6. How much would it cost to buy all of the games brand new?

_____

_____

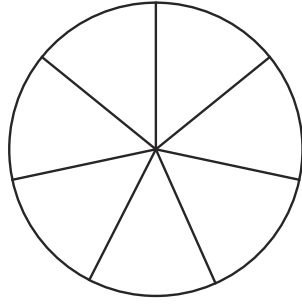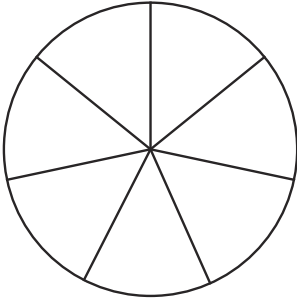# Adding and Subtracting Fractions with the Same Denominators

Colour the correct number of sections in each circle, and then colour more or erase some depending on the calculation. The denominator stays the same – you just have more or less sections depending on the calculation!

E.g.

$$\frac{3}{8} + \frac{2}{8} = \qquad \frac{5}{8}$$

E.g.

$$\frac{7}{8} - \frac{5}{8} = \qquad \frac{2}{8}$$

1.

$$\frac{2}{6} + \frac{2}{6} = \qquad \underline{\quad}$$

2.

$$\frac{4}{5} - \frac{3}{5} = \qquad \underline{\quad}$$

3.

$$\frac{1}{8} + \frac{4}{8} = \qquad \underline{\quad}$$

4.

$$\frac{5}{6} - \frac{2}{6} = \qquad \underline{\quad}$$

5.

$\frac{2}{7} + \frac{3}{7} =$ ⎯⎯

6.

$\frac{8}{8} - \frac{7}{8} =$ ⎯⎯

7.
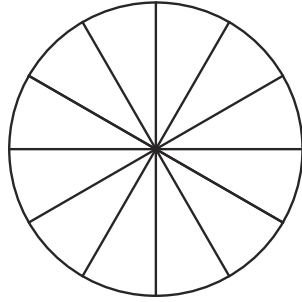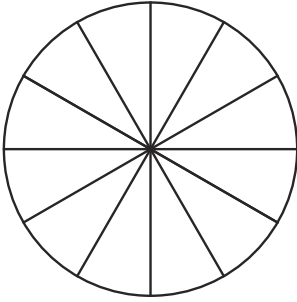
$\frac{2}{12} + \frac{8}{12} =$ ⎯⎯

8.
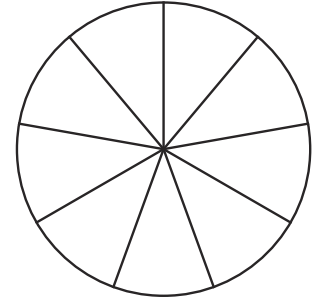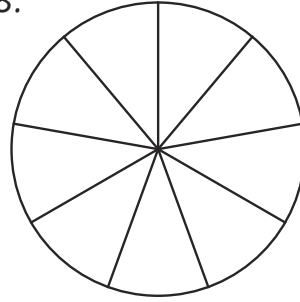
$\frac{7}{9} - \frac{5}{9} =$ ⎯⎯

Counting Up and Down in Hundredths

Hundredths are made when we divide an object by 100. If we could cut a pizza into a hundred slices, we would have made hundredths of a pizza!

A. Practise counting in hundredths by filling in the blanks.

1.

$\frac{1}{100}$	$\frac{2}{100}$	$\frac{3}{100}$	$\frac{4}{100}$						

2.

$\frac{18}{100}$									

3.

									$\frac{37}{100}$
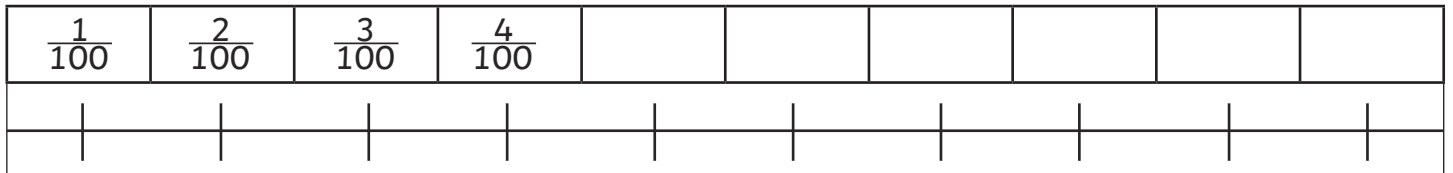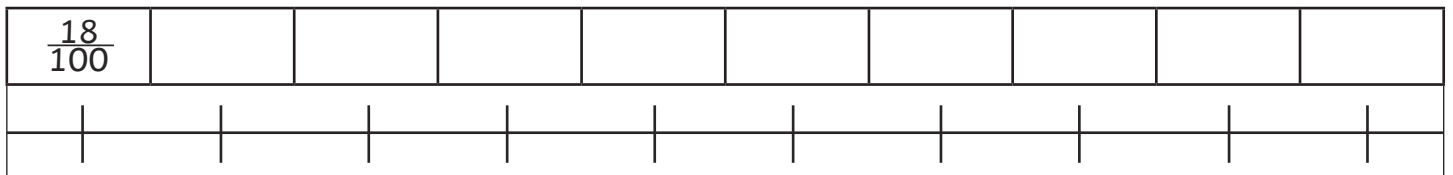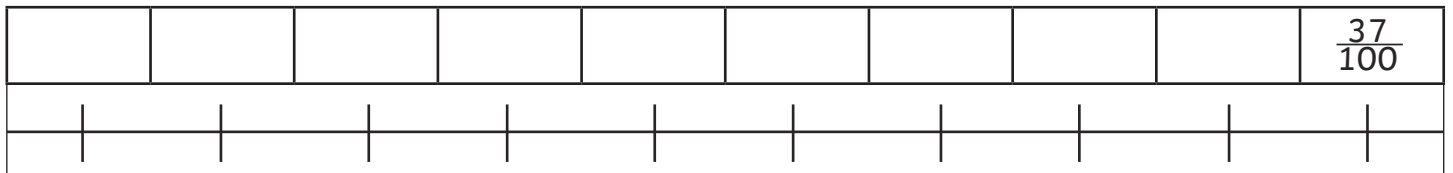
B. We can also apply hundredths to numbers. £1 is divided into 100 pennies, so each penny is one hundredth of a pound.

Fill in the missing numbers and the matching number of pennies.

E.g.

$\frac{1}{100}$	$\frac{2}{100}$	$\frac{3}{100}$	$\frac{4}{100}$	$\frac{5}{100}$	$\frac{6}{100}$	$\frac{7}{100}$	$\frac{8}{100}$	$\frac{9}{100}$	$\frac{10}{100}$
1p	2p	3p	4p	5p	6p	7p	8p	9p	10p

1.

$\frac{11}{100}$		$\frac{13}{100}$		$\frac{15}{100}$	$\frac{16}{100}$	$\frac{17}{100}$			
11p		13p		15p	16p	17p			

2.

$\frac{31}{100}$	$\frac{32}{100}$	$\frac{33}{100}$							
							38p	39p	40p

3.

					$\frac{80}{100}$				
75p	76p	77p	78p	79p					

4.

									$\frac{100}{100}$
									£1

Converting Decimal Tenths and Hundredths to Fractions

Converting decimals tenths and hundredths to fractions couldn't be easier - all you need is a place value chart! To convert from a decimal into a fraction, we write the number on the place value chart then **read the number off the place value chart**.

0.7=	Ones		tenths	No ones and 7 tenths. So the fraction is... $\frac{7}{10}$!
	0	.	7	

A. Write these decimals into the place value chart. Read the place value and write the decimal as a fraction. The first question has been completed for you.

Decimal	Place Value Chart			How many tenths?
0.7	Ones		tenths	7 tenths = $\frac{7}{10}$
	0	.	7	
0.3	Ones		tenths	
		.		
zero point two	Ones		tenths	
		.		
0.4	Ones		tenths	
		.		
0.1	Ones		tenths	
		.		
0.9	Ones		tenths	
		.		
zero point eight	Ones		tenths	
		.		

Working with hundredths is similar except we need to include the tenths too. There are 10 hundredths in a tenth.

O		t	hundredths	We have 73 hundredths - therefore $\frac{73}{100}$
0	.	7	3	

B. Complete the table.

Decimal	Place Value Chart			How many tenths?
0.73	Ones	tenths	hundredths	73 hundredths = $\frac{73}{100}$
	0 .	7	3	
0.20	Ones	tenths	hundredths	
	0 .			
zero point four six	Ones	tenths	hundredths	
	0 .			
nought point nought 4	Ones	tenths	hundredths	
	0 .			
0.42	Ones	tenths	hundredths	
	0 .			
0.66	Ones	tenths	hundredths	
	0 .			
0.99	Ones	tenths	hundredths	
	0 .			

C. What do you think this decimal is as a fraction?

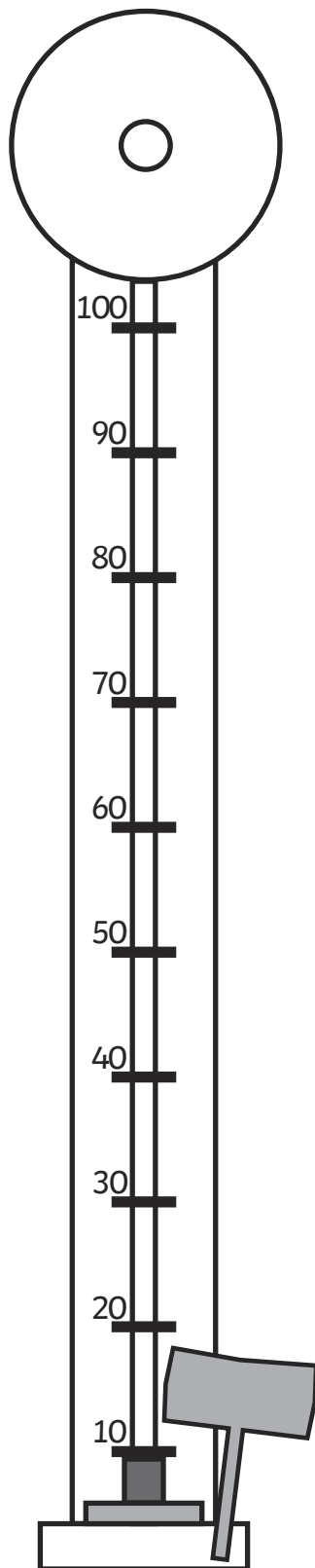| O		t	h	th
0	.	0	0	7

Test of Strength

Solving problems with increasingly harder fractions.

Start at the bottom and work your way towards the top. When you have finished, check your answers (going upwards from the bottom) and colour each question you answered correctly. How far can you go until you answer incorrectly?

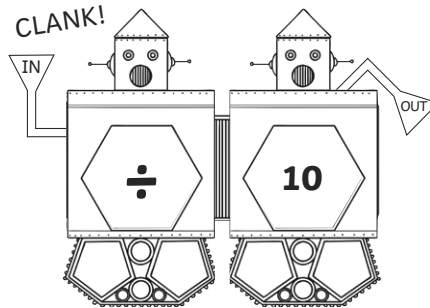|		
Superhuman		18 is $\frac{3}{4}$ of which number?
Super Strong heavyweight	100	What is $\frac{1}{2}$ of $\frac{2}{4}$?
Strong Heavyweight	90 80	Kieran and Danyal have some marbles. Kieran takes $\frac{2}{3}$ of them. Danyal is left with 24. How many does Kieran have?
Heavyweight	70	David has to pay $\frac{2}{7}$ of everything he earns in tax. If he earns £84, how much does he have to pay in tax?
Super Strong	60 50	Which is bigger $\frac{1}{2}$ of 28 or $\frac{1}{4}$ of 48?
Powerful	40	Joe has 30 crisps in his packet. He eats 10 of them. What fraction does he have remaining?
Muscly	30 20	Which is bigger $\frac{1}{10}$ or $\frac{1}{100}$?
Strong	10	What is $\frac{1}{2}$ of 30?

Shrinking Machine

Recognise that hundredths arise when dividing an object by 100.

The shrinking machine makes numbers 10 or 100 times smaller. Can you write the shrunken numbers in the new table? Add some sound effects to the machine too!
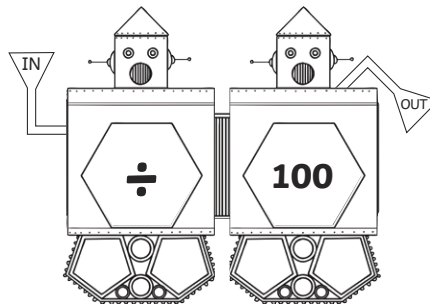
Make the numbers 10 times smaller.

O Ones	t tenths	h hundredths
3	0	
7	0	
8	0	
9	0	
5	0	
2	0	

CLANK!

IN ÷ 10 OUT

O Ones	t tenths	h hundredths

Make the numbers a hundred times smaller.

T tens	O ones	t tenths	h hundredths
3	6		
4	9		
1	8		
7	2		
	8		
	1		

IN ÷ 100 OUT

CHUGGA CHUGGA!

T tens	O ones	t tenths	h hundredths