Beat the Clock						Be	at th	e Cl	ock		
Score: Time:				40 40 40 40	55 60 55 60 55 60 5 10 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10	Score: Time:				40	55 60 (x y y y) 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10
×	3	4	8	5	10	 ×	3	4	8	5	10
4						4					
2						2					
6						6					
12						12					
3						3					
7						7					
1						1					
5						5					
11						11					
10						10					
9						9					
8						8					

[|] My target for next time is: _____



My target for next time is: _____

72	2	62	AZ	0	4
25	100	81	72	Z	144
121	7	49	22	2	100
10	2	72	72	144	\odot
72	4	7	11	36	16
11	49	64	72	10	121
16	49	100	4	72	144
72 RECENT STUDIES. Focused education on life's walk!	4	10	11	16	82

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Q	J	122	L.O	144	72
72	49)	2	12	9 ^Z	36
121	100	72	32	7	25
S	12	12	72	49	81
B	36	4	12	72	81
121	100	72	A9)	62	$\bigcirc \\ \bigcirc \\$
49	10	100	100	4	9
	72	16	Z	72	64

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22	81	0	64	4	72
16	12	72	00	1 A	49
5	121	100	72	62	16
12	72	10	4	(49)	100



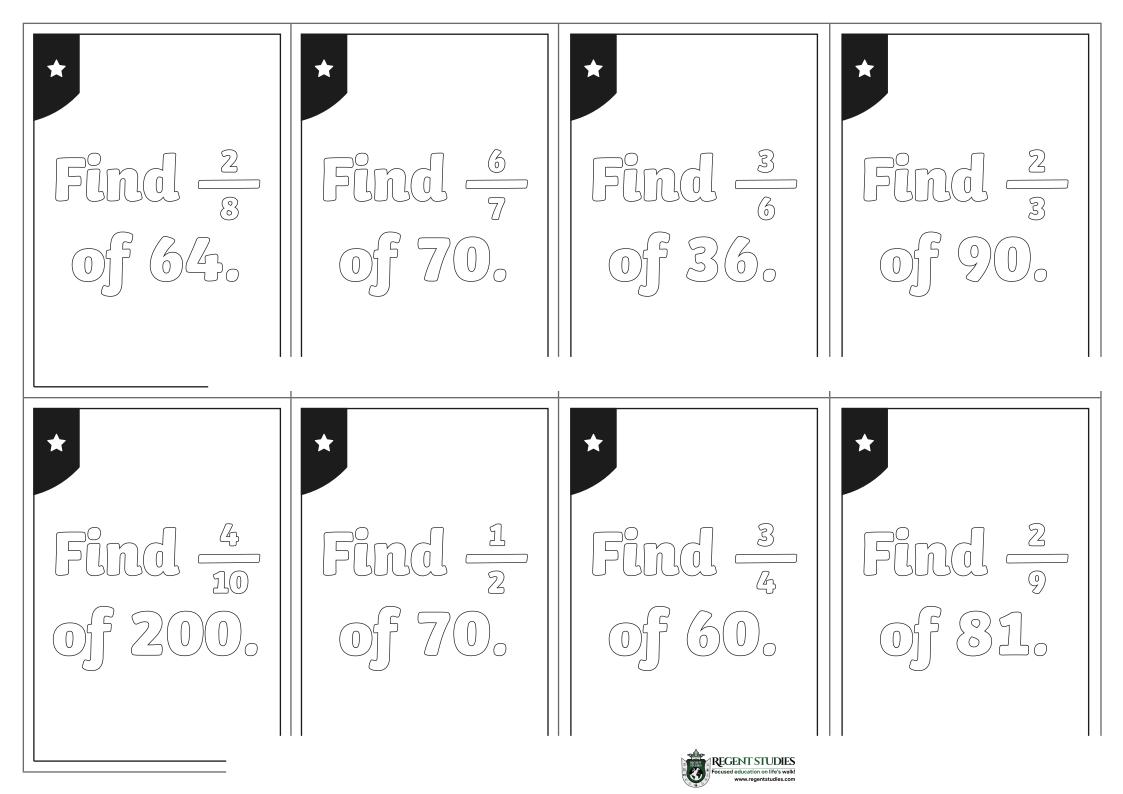
Bingo Instructions

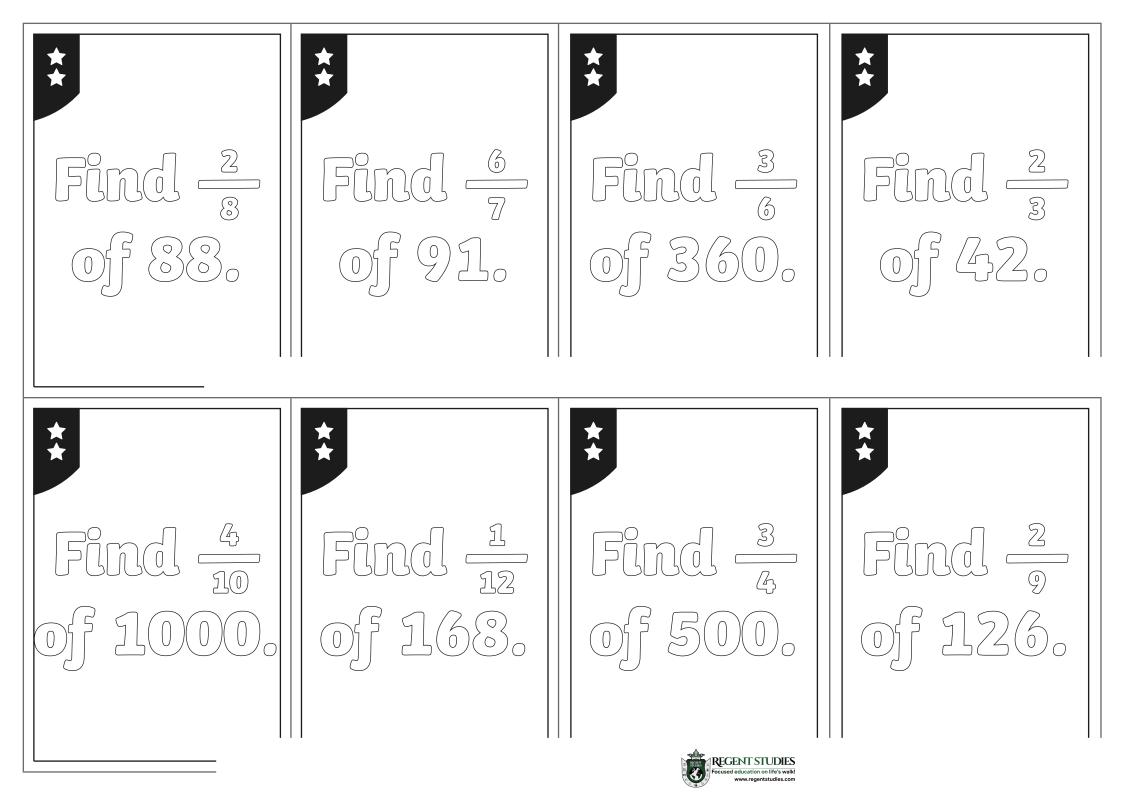
Each child needs a bingo card. It doesn't matter if more than one child has the same card: it will just mean more winners!

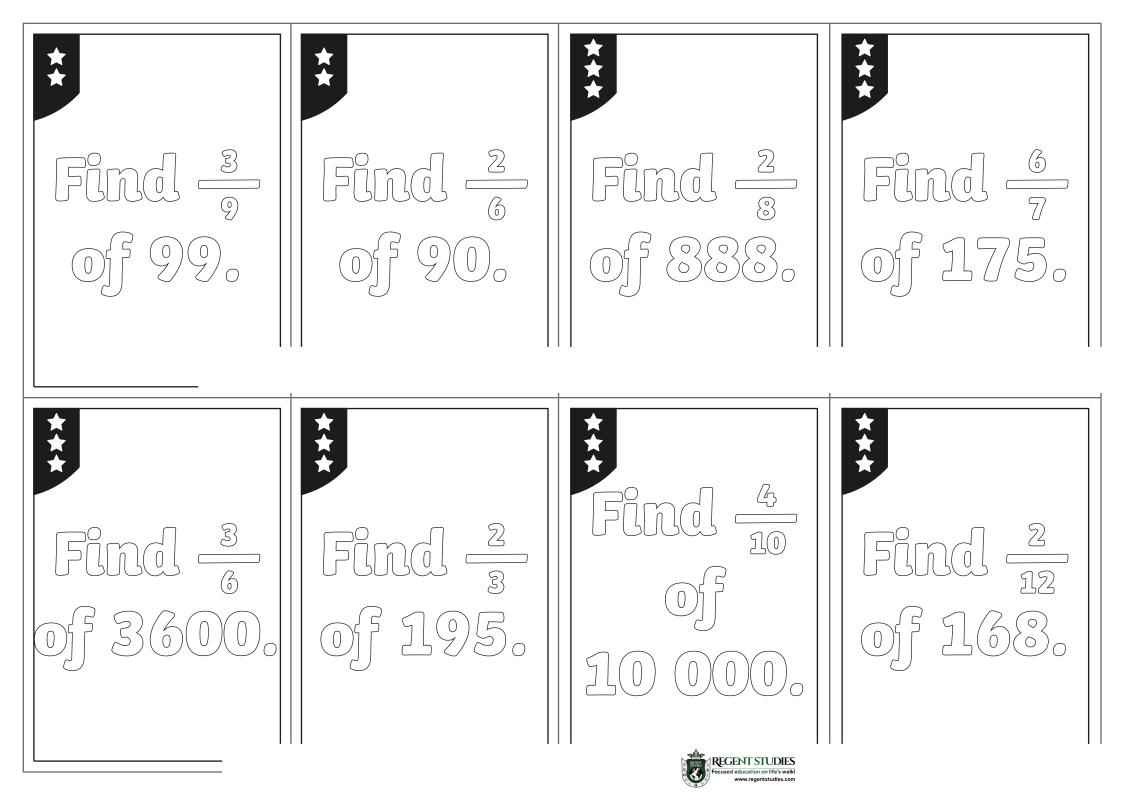
Read out the questions below. If the children have the answer on their card, they can cross it off. Once they have crossed off all six of their numbers, they shout 'bingo' and have won!

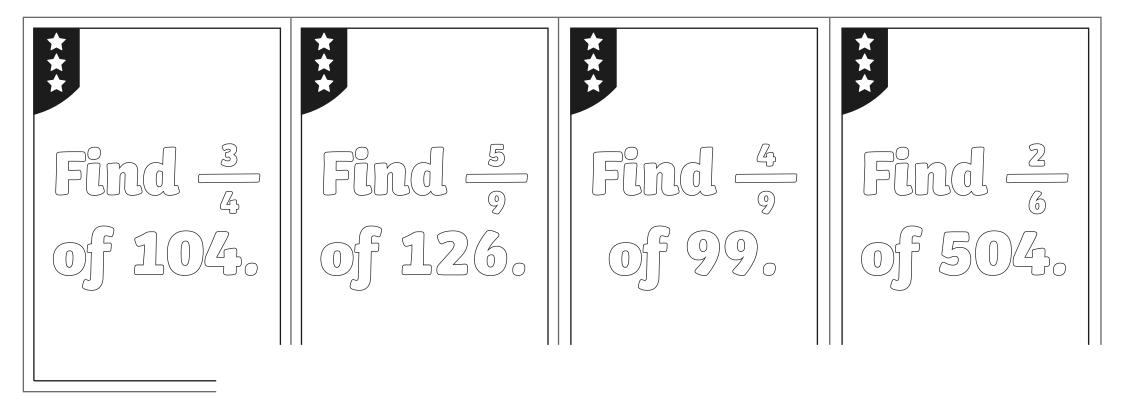
1.	What is 4²?
2.	Calculate seven lots of 3.
3.	What is the product of 9 and 8?
4.	49 is the answer to a square number calculation. What was the question?
5.	100 is which number squared?
6.	36 is the answer to a square number calculation. What was the question?
7.	What is 12²?
8.	How many 8s are there in 64?
9.	10 ²
10.	What is the product of 4 and 1?
11.	What is 1²?
12.	How many 5s are there in 60?
13.	121 is the square of which number?
14.	8²
15	7 ²











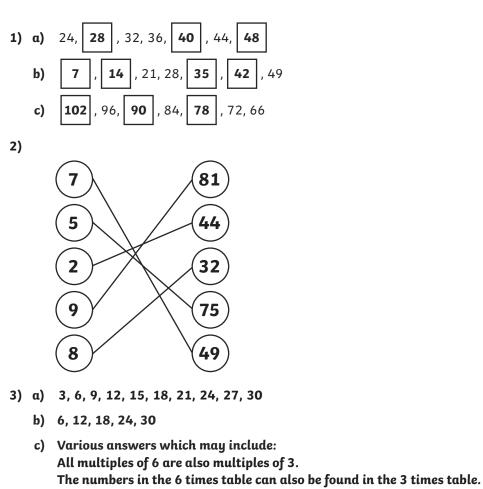


Fantastic Fractions! Answers

Question		Answer	
*	Find the fractions of these numbers:		
	Find $\frac{2}{8}$ of 64 = 16	Find $\frac{6}{7}$ of 70 = 60	Find $\frac{3}{6}$ of 36 = 18
	Find $\frac{2}{3}$ of 90 = 60	Find $\frac{4}{10}$ of 200 = 80	Find $\frac{1}{2}$ of 70 = 35
	Find $\frac{3}{4}$ of 60 = 45	Find $\frac{2}{9}$ of 81 = 18	
**	Find the fractions of these numbers:		
	Find $\frac{2}{8}$ of 88 = 22	Find $\frac{6}{7}$ of 91 = 78	Find $\frac{3}{6}$ of 360 = 180
	Find $\frac{2}{3}$ of 42 = 28	Find $\frac{4}{10}$ of 1000 = 400	Find $\frac{1}{12}$ of 168 = 14
	Find $\frac{3}{4}$ of 500 = 375	Find $\frac{2}{9}$ of 126 = 28	Find $\frac{3}{9}$ of 99 = 33
	Find $\frac{2}{6}$ of 90 = 30		
***	Find the fractions of these numbers:		
	Find $\frac{2}{8}$ of 888 = 222	Find <u>6</u> of 175 = 150	Find $\frac{3}{6}$ of 3600 = 1800
	Find $\frac{2}{3}$ of 195 = 130	Find $\frac{4}{10}$ of 10 000 = 4000	Find $\frac{2}{12}$ of 168 = 28
	Find $\frac{3}{4}$ of 104 = 78	Find $\frac{5}{9}$ of 126 = 70	Find $\frac{4}{9}$ of 99 = 44
	Find $\frac{2}{6}$ of 504 = 168		







Every other number in the multiples of 3 is a multiple of 6.

```
d) Yes
```

```
    a) False. Even multiples of 9 include: 36, 54, 72, 90, 108...
    b) True.

        4 + 6 + 2 = 12

        12 is divisible by 3 so 462 is a multiple of 3
        c) False. 21 is a multiple of 3; 35 is a multiple of 5; 70 is a multiple of 10...
    2) Set A. 16 is the odd one out as it is not a multiple of 3.
```

Set A. 16 is the odd one out as it is not a multiple of 3.
 Set B. 12 is the odd one out as it is not a multiple of 8.
 Set C. 3 is the odd one out as it is not a multiple of 9.

3) No. Some are multiples of three but some aren't.
567 is. 5 + 6 + 7 = 18; 18 ÷ 3 = 6
261 is. 2 + 6 + 1 = 9; 9 ÷ 3 = 3
952 isn't. 9 + 5 + 2 = 16
16 is not divisible by 3
257 isn't. 2 + 5 + 7 = 14
14 is not divisible by 3





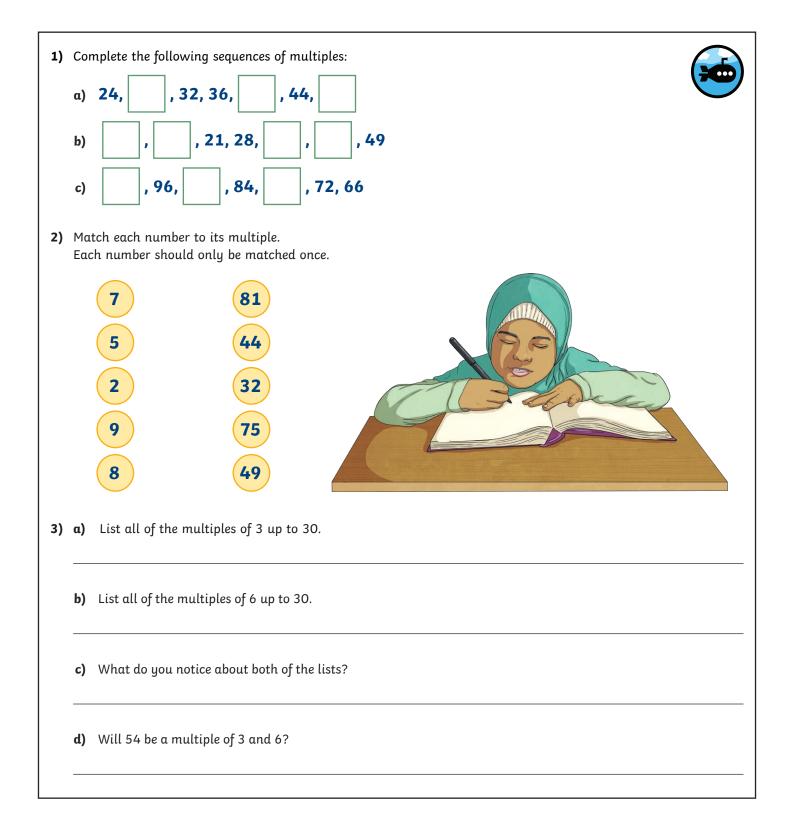
Answers

1) Two possible answers: 72 and 96

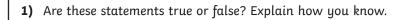
2) 54

- 3) a) 150, 153, 156, 159, 162, 165, 168, 171, 174, 177, 180, 183, 186, 189, 192, 195, 198
 - b) 152, 156, 160, 164, 168, 172, 176, 180, 184, 188, 192, 196, 200
 - c) 156, 168, 180, 192
 - d) The common multiples follow a pattern of adding 12 each time as $3 \times 4 = 12$.
 - e) 204 because 192 + 12 = 204











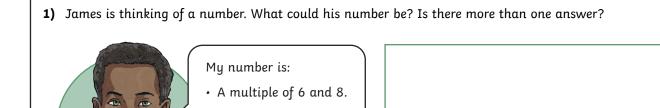
	Statement	True or False?	Explanation
α)	All multiples of 9 are odd except 18.		
b)	462 is a multiple of 3.		
c)	Multiples of 7 are not common multiples in any other times table.		

2) Circle the odd number out in each set of numbers. Explain your reasoning.

Set A	Set B	Set C
12	16	36
42	12	81
27	48	9
33	88	3
16	72	27
21	32	108

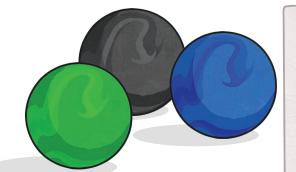
3) Lucas says that these 3-digit numbers are all multiples of 3. Do you agree? Prove how you know. 567 261 257 952 952





• Greater than 50 but less than 100.

2) How many marbles does Eva have in her collection?



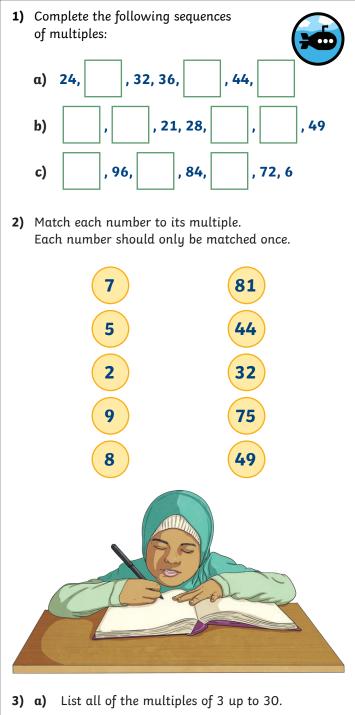
- ALALA BARALLA B
- The total is a multiple of 6 and 9.
- She has between 30 and 60 marbles.
- The number of marbles is also a multiple of 3 and 2.
- The second digit of the number of marbles is lower than the first digit.

- 3) a) List the multiples of 3 between 150 and 200.
 - **b)** List the multiples of 4 between 150 and 200.
 - c) Identify the common multiples of 3 and 4 between 150 and 200.

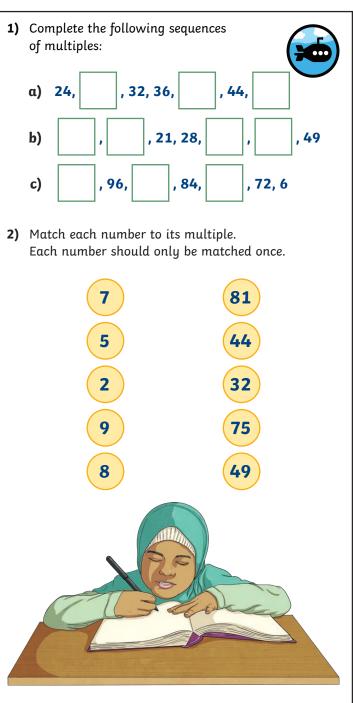
d) What do you notice about these common multiples? Is there a pattern you can identify?

e) What would the next common multiple of 3 and 4 be if you continued this pattern?



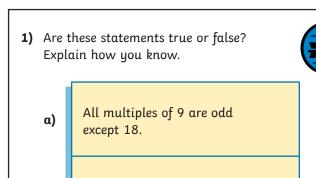


- **b)** List all of the multiples of 6 up to 30.
- c) What do you notice about both of the lists?
- d) Will 54 be a multiple of 3 and 6?



- 3) a) List all of the multiples of 3 up to 30.
 - **b)** List all of the multiples of 6 up to 30.
 - c) What do you notice about both of the lists?
 - d) Will 54 be a multiple of 3 and 6?



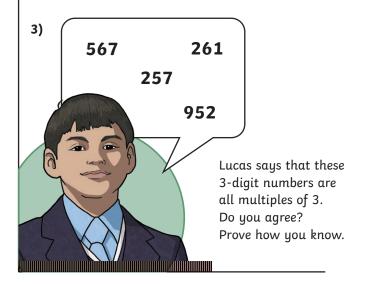


b) 462 is a multiple of 3.

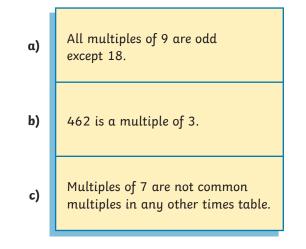
c) Multiples of 7 are not common multiples in any other times table.

2) Can you identify the odd number out in each set of numbers? Explain your reasoning.

Set A	Set B	Set C
12	16	36
42	12	81
27	48	9
33	88	3
16	72	27
21	32	108

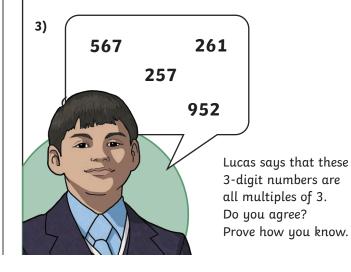


 Are these statements true or false? Explain how you know.

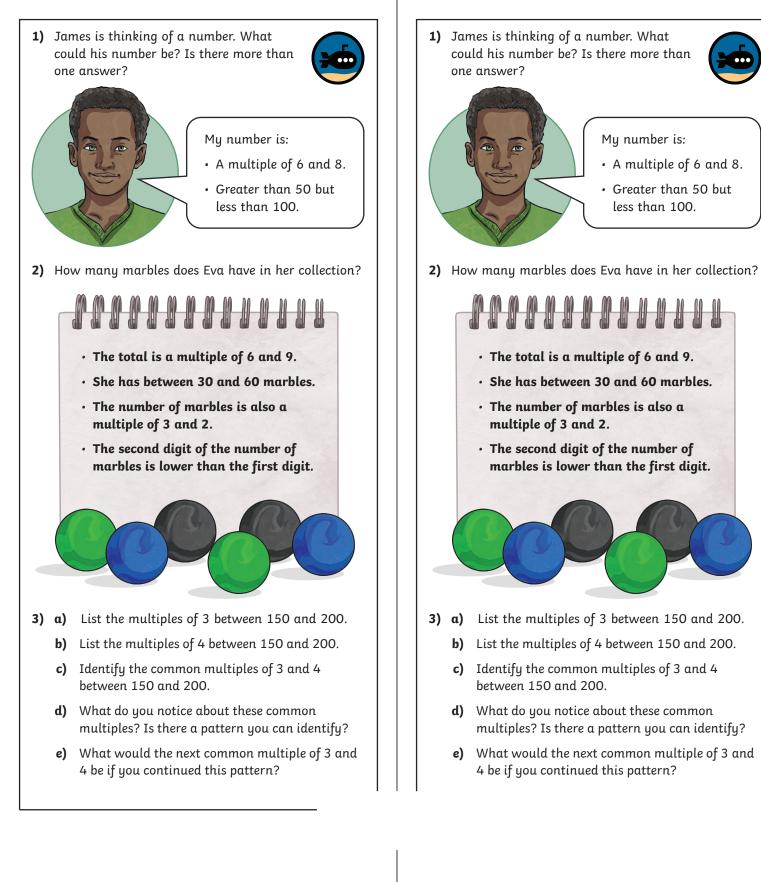


2) Can you identify the odd number out in each set of numbers? Explain your reasoning.

Set A	Set B	Set C
12	16	36
42	12	81
27	48	9
33	88	3
16	72	27
21	32	108







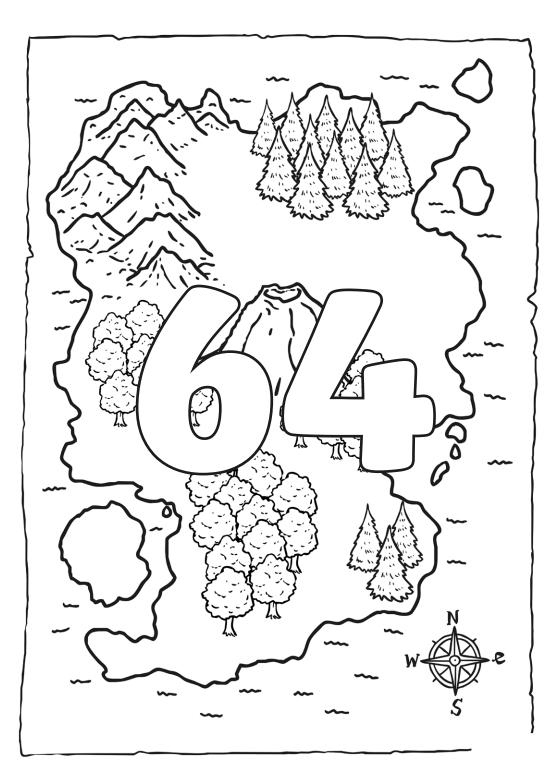


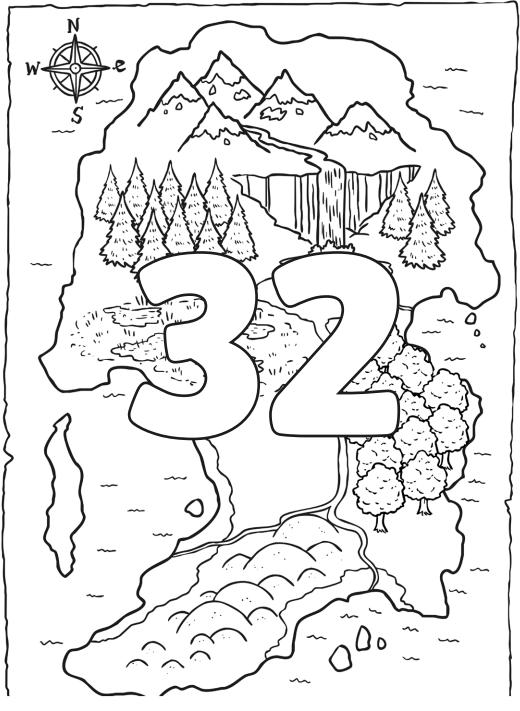
Factors Treasure Hunt Cards

Teacher note:

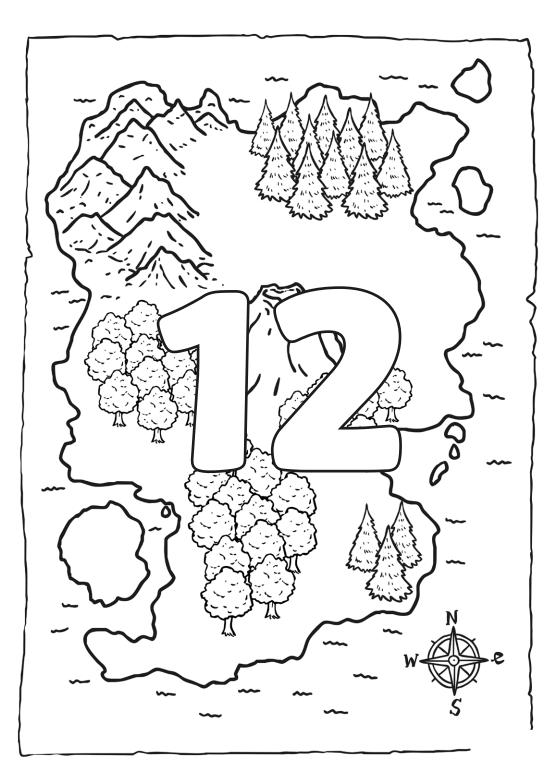
Print these pages out and stick them up or hide them for the children to find. They record their answers on their Factors Treasure Hunt Sheets.

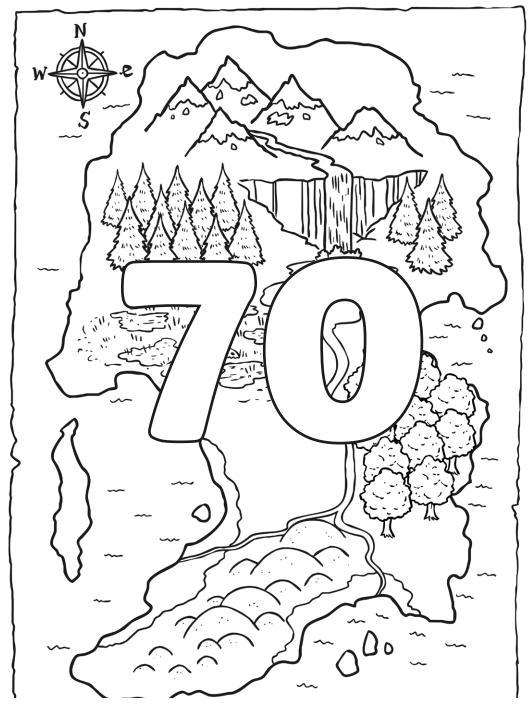




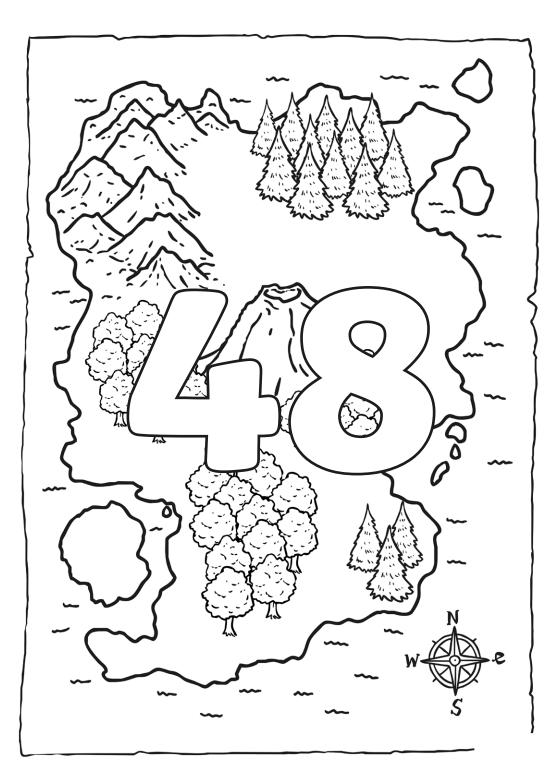


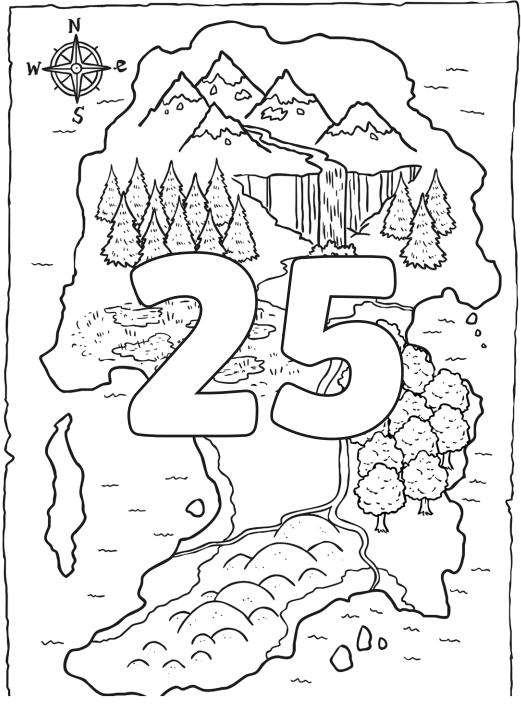




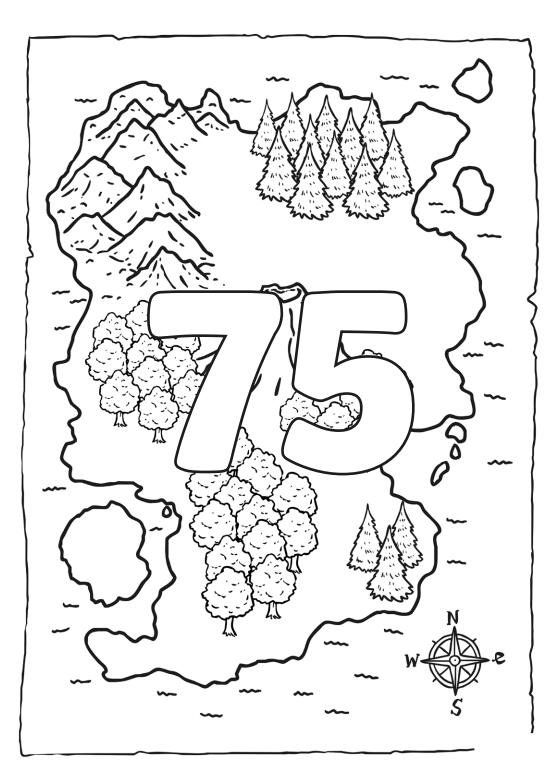


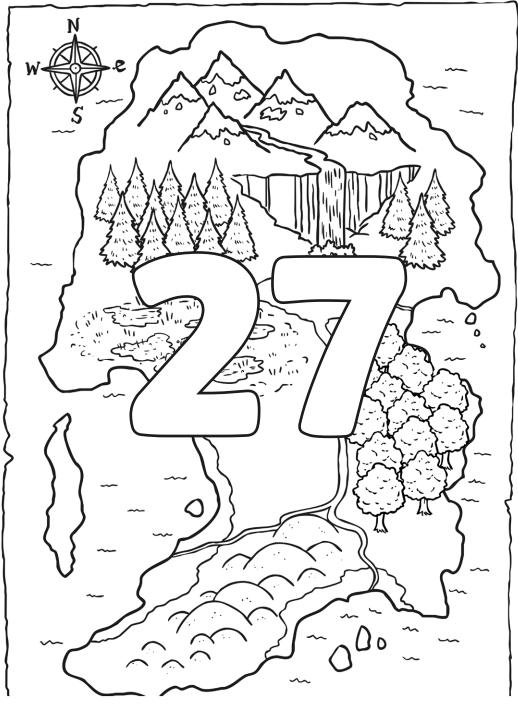




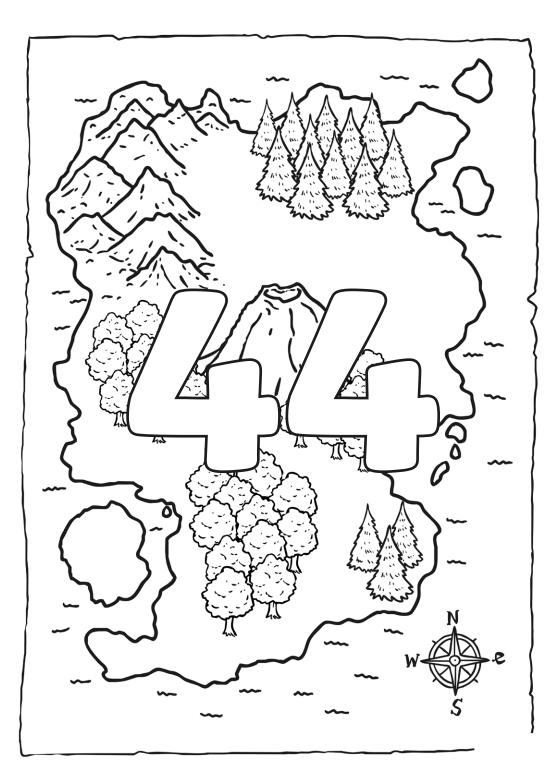


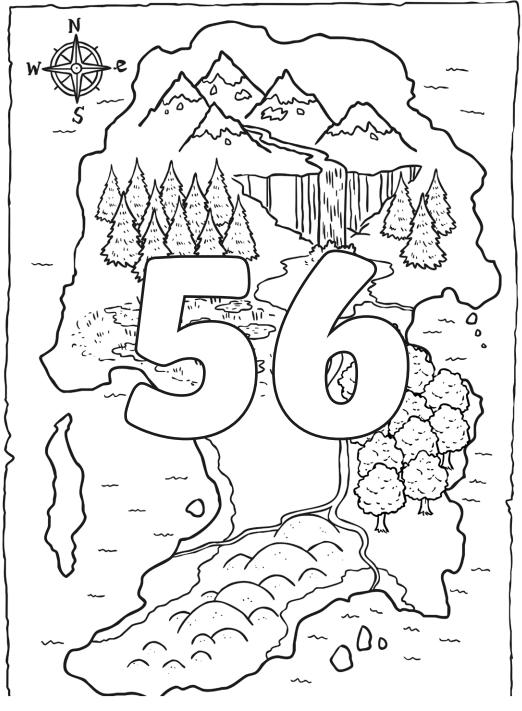














I can say whether numbers are prime or composite.

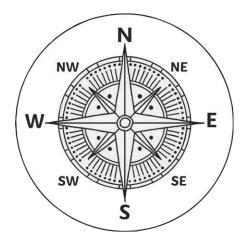
Look at your factors below.

Search for numbers that are multiples of your factor. For example, if your factor is 5 then it matches with 20, 65 and 35 because they are multiples of 5. In other words, 5 is a factor of those numbers. Write those numbers next to your factor below.

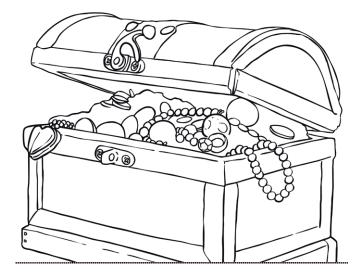
How many can you find?

Happy hunting!

2	
5	
3	
4	
10	







Factors Treasure Hunt **Answers**

Question		Answer			
	Searc	Search for numbers that are multiples of your factor. Write those numbers next to your factor below.			
	2	64, 32, 12, 70, 48, 44, 56			
	5	70, 25, 75			
	3	12, 48, 75, 27			
	4	64, 32, 12, 48, 44, 56			
	10	70			





I can say whether numbers are prime or composite.

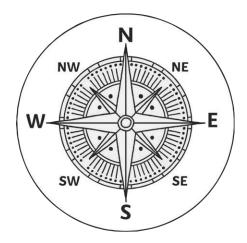
Look at your factors below.

Search for numbers that are multiples of your factor. For example, if your factor is 5 then it matches with 20, 65 and 35 because they are multiples of 5. In other words, 5 is a factor of those numbers. Write those numbers next to your factor below.

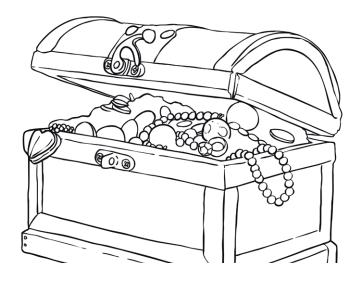
How many can you find?

Happy hunting!

4	
8	
7	
6	
9	
12	
3	
2	









Factors Treasure Hunt **Answers**

Question		Answer	
	Search for numbers that are multiples of your factor. Write those numbers next to your factor below.		
	4	64, 32, 12, 48, 44, 56	
	8	64, 32, 48, 56	
	7	70, 56	
	6	12, 48	
	9	27	
	12	48, 12	
	3	12, 48, 75, 27	
	2	64, 32, 12, 70, 48, 44, 56	





I can say whether numbers are prime or composite.

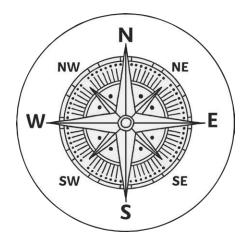
Look at your factors below.

Search for numbers that are multiples of your factor. For example, if your factor is 5 then it matches with 20, 65 and 35 because they are multiples of 5. In other words, 5 is a factor of those numbers. Write those numbers next to your factor below.

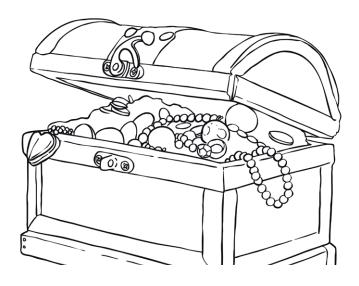
How many can you find?

Happy hunting!

4	
8	
7	
6	
25	
9	
12	
16	
3	
2	









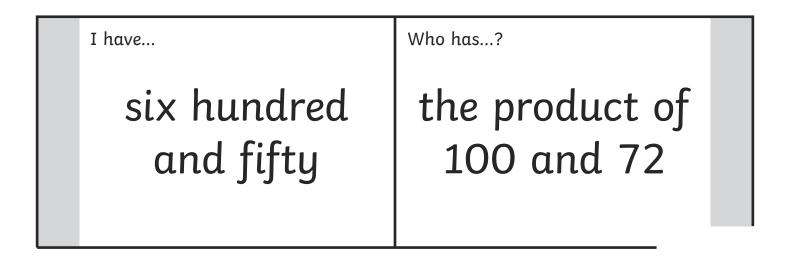
Factors Treasure Hunt **Answers**

Question	Answer			
	Search for numbers that are multiples of your factor. Write those numbers next to your factor below.			
	4	64, 32, 12, 48, 44, 56		
	8 64, 32, 48, 56			
	7	70, 56		
	6	12, 48		
	25	25, 75		
	9	27		
	12	48, 12		
	16	64, 48		
	3	12, 48, 75, 27		
	2	64, 32, 12, 70, 48, 44, 56		



I have	Who has?
	thirty-five
seven	multiplied by
	one thousand

I have	Who has?	
35 000	65 000 ÷ 100	

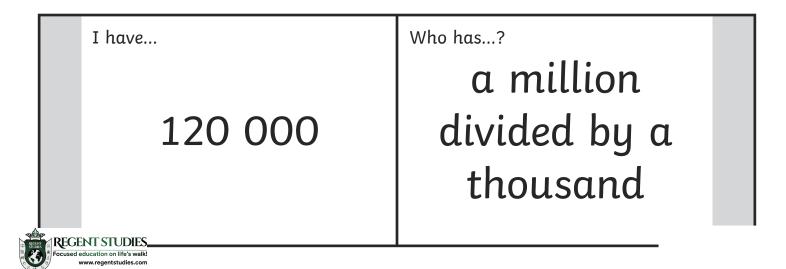


I have	Who has?
7200	ten times 35
REGENT STUDIES	

I have	Who has?
350	672 000 ÷ 1000

I have	Who has?
672	10 × 5600

I have	Who has?	
56 000	the number a thousand times bigger than 120	



I have...

Who has...?

one thousand

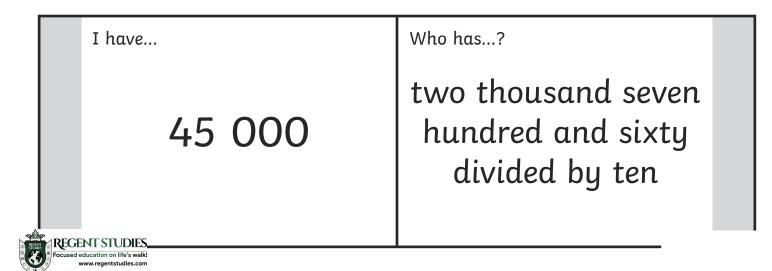
640 × 10

I have...

six thousand four hundred Who has...?

the number ten times bigger than six thousand

I have	Who has?
60 000	450 × 100



I have	Who has?	
276	9 × 1000	

I have	Who has?
nine thousand	561 000 ÷ 100

I have...

five thousand six hundred and ten Who has...?

the product of ten and seven hundred

I have...

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seven thousand

Who has...?

1000 ÷ 100

I have	Who has?
ten	10 × 2200

I have	Who has?
22 000	840 ÷ 10

I have	Who has?	
eighty-four	the number one hundred times smaller than 53 700	

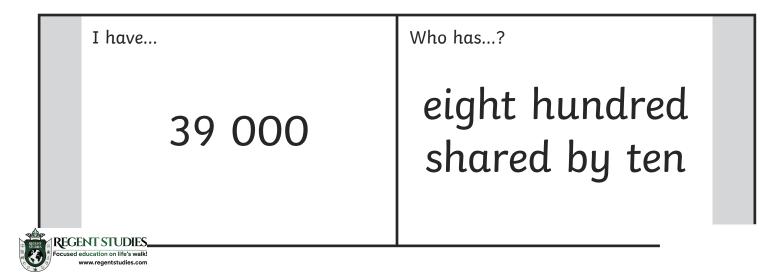
I have	Who has?
537	724 × 100
Focused education on life's walk!	· · · · · · · · · · · · · · · · · · ·

 I have...
 Who has...?

 72 400
 ten multiplied by 62

I have	Who has?
620	104 000 ÷ 10

I have	Who has?	
10 400	3900 × 10	



I have	Who has?	
eighty	1 000 000 divided by ten	

I have	Who has?
100 000	30 × 1000

I have	Who has?	
thirty thousand	46 390 ÷ 10	

I have	Who has?	
4639	89 300 ÷ 100	
recent studies.com	1	

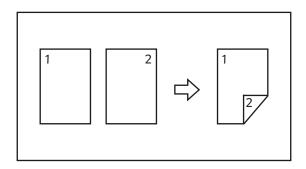
I have 893	Who has? five hundred divided by ten
I have	Who has?
fifty	the number a hundred times smaller than 700



Masterful Multiplication Game

Instructions

To create these game boards, you must utilise the duplex function on your school photocopier to print double-sided pages.



The solid grey lines are cut lines.

The dashed grey lines are valley fold lines.

The dotted grey lines are mountain fold lines.

Play in groups of 3 or 4.

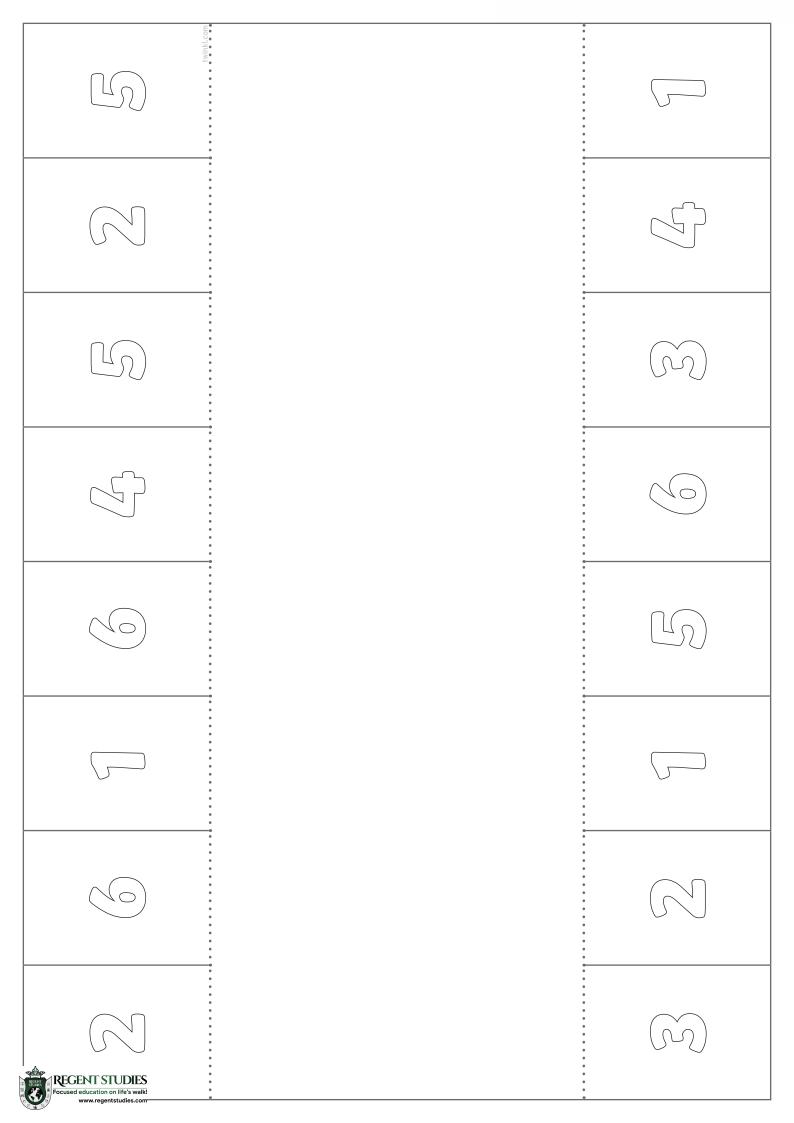
1. Roll a dice.

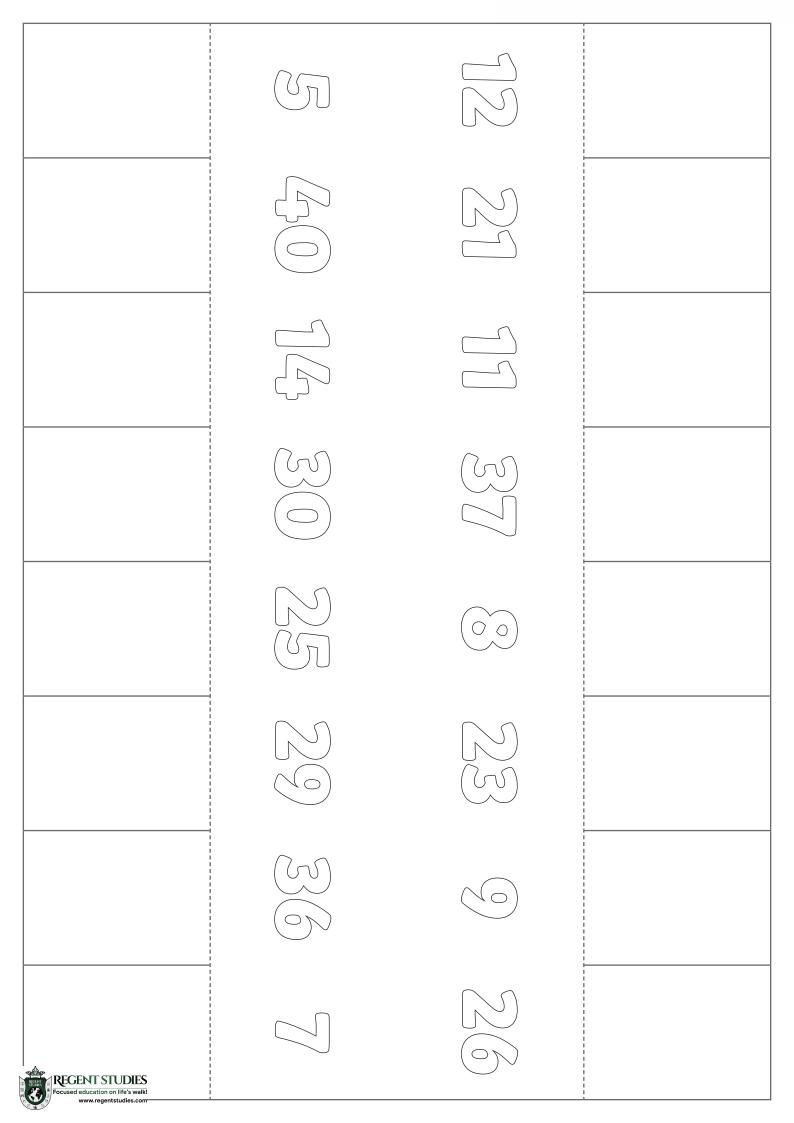
2. Open any flap with that number on it.

3. Multiply the number on the flap by the number under the flap. Use paper or a whiteboard to write down a calculation and work it out if you need to.

4. The winner of each round is the person with the answer closest to 100.







I have	Who has?
0.5 metres	1500m

I	have	Who has?	
	1.5km	1.7m	

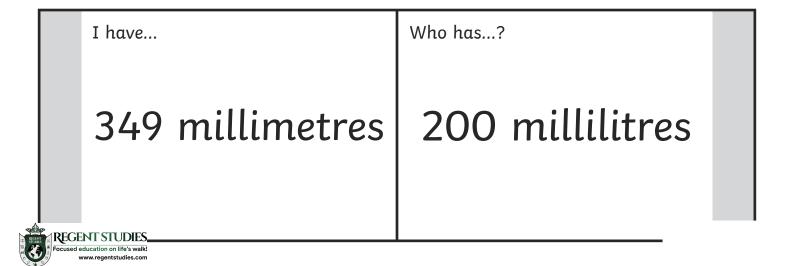
I have	Who has?	
1700mm	3120 millimetres	
	t	

I have	Who has?	
3.12 metres	0.902 litres	
REGENT STUDIES		

50cm

I have	Who has?
500mm	58m

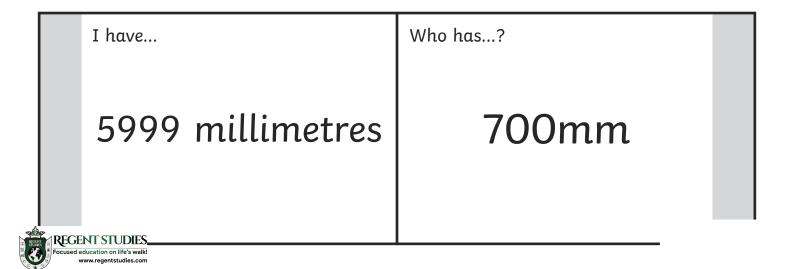
I have	Who has?	
5800cm	0.349 metres	



I have	Who has?
0.2 litres	1.5l

I have	Who has?
1500ml	550cm

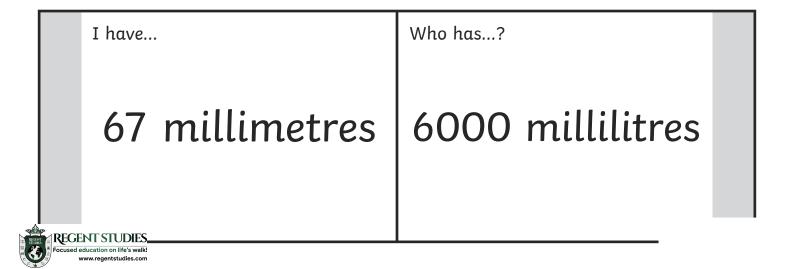
I have	Who has?	
5.5m	5.999 metres	



I have	Who has?	
70cm	7550 millimetres	

I have	Who has?
7.55 metres	65mm

I have	Who has?	
6.5cm	0.067 metres	



I have	Who has?
6 litres	500g

I have	Who has?
0.5kg	0.09 litres

I have	Who has?
90 millilitres	1000g

I have	Who has?	
1kg	0.599 litres	
CNT STUDIES		

I have...

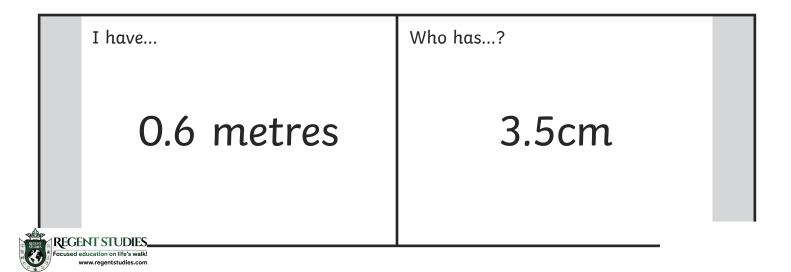
Who has...?

599 millilitres

0.478 metres

I have	Who has?
478 millimetres	7500g

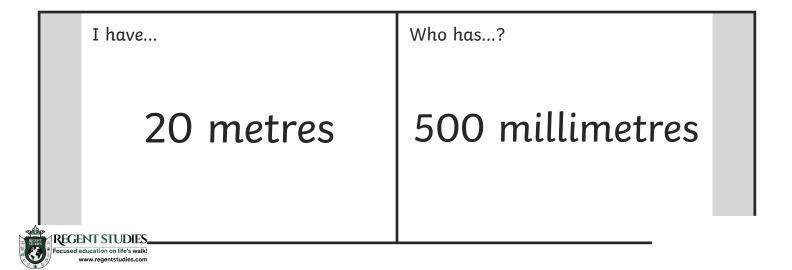
I have	Who has?
7.5kg	600 millimetres



I have	Who has?
35mm	5 millimetres

I have	Who has?
0.005 metres	1000ml

I have	Who has?	
1l	20000 millimetres	



Measure Match Loop Cards **Answers**

Question	Answer	
500 millimetres	0.5 metres	
1500m	1.5km	
1.7m	1700mm	
3120 millimetres	3.12 metres	
0.902 litres	902 millilitres	
50cm	500mm	
58m	5800cm	
0.349 metres	349 millimetres	
200 millilitres	0.2 litres	
1.5l	1500ml	
550cm	5.5m	
5.999 metres	5999 millimetres	
700mm	70cm	
7550 millimetres	7.55 metres	
65mm	6.5cm	
0.067 metres	67 millimetres	
6000 millilitres	6 litres	
500g	0.5kg	
0.09 litres	90 millilitres	
1000g	1kg	
0.599 litres	599 millilitres	
0.478 metres	478 millimetres	
7500g	7.5kg	
600 millimetres	0.6 metres	
3.5cm	35mm	
5 millimetres	s 0.005 metres	
1000ml	11	
20000 millimetres	20 metres	



Multiples

To identify multiples of numbers. 1) Colour a stripe of the number balloons below according to each number they are a multiple of. Multiple of: Colour yellow 2 3 red 4 orange 36 50 5 blue 10 green 9 21 14 15 24 25 16 10 2) Which balloons have been coloured more than one colour? 3) What is the term used to describe these numbers?

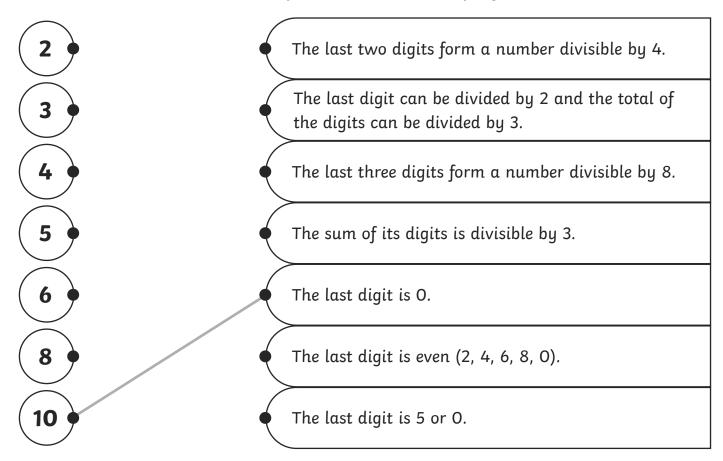
4) Which of the balloons have only been coloured once?



Multiples

To identify multiples of numbers.

1) Match the number to the rule. The first one has been done for you.



2) Fill in the table below with five possible multiples greater than 50 for each number.

Times Table		Multiple	
3			
4			
6			
8			



3) a) Sort your answers from question 2 into the correct column. **Hint:** Some numbers might appear in more than one column.

					_
	Multiples of 3	Multiples of 4	Multiples of 6	Multiples of 9	
)	Sort the 3-digit num	bers below into the c	rorrect column		The
,		e the rules from ques		A series of	The m
		46 (276)	(378) (41	7 (640)	
	(7	20 (852)	(888) (93		

- 4) Which of the common multiples in the table above can be found in all 4 columns?
- 5) Can you find any other numbers which are common multiples of 3, 4, 6 and 8?

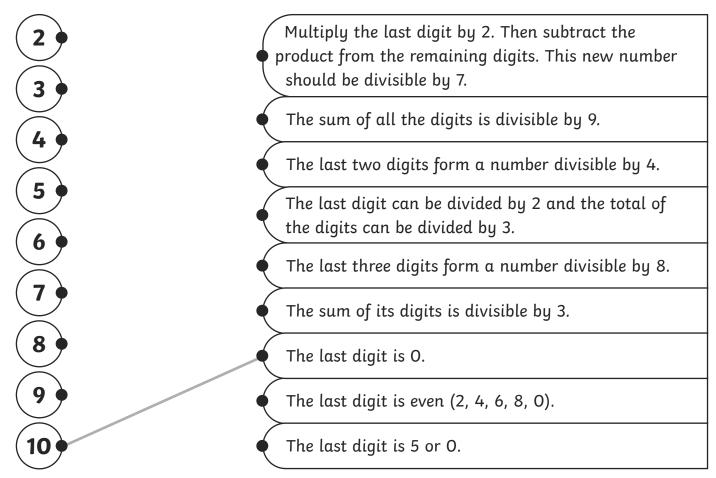


a)

Multiples

To identify multiples of numbers.

1) Match the number to the rule. The first one has been done for you.



2) Fill in the table below with five possible 3-digit multiples for each number.

Times Table		Multiple	
3			
5			
7			
9			



3) a) Sort your answers from question 2 into the correct column. **Hint:** Some numbers might appear in more than one column.

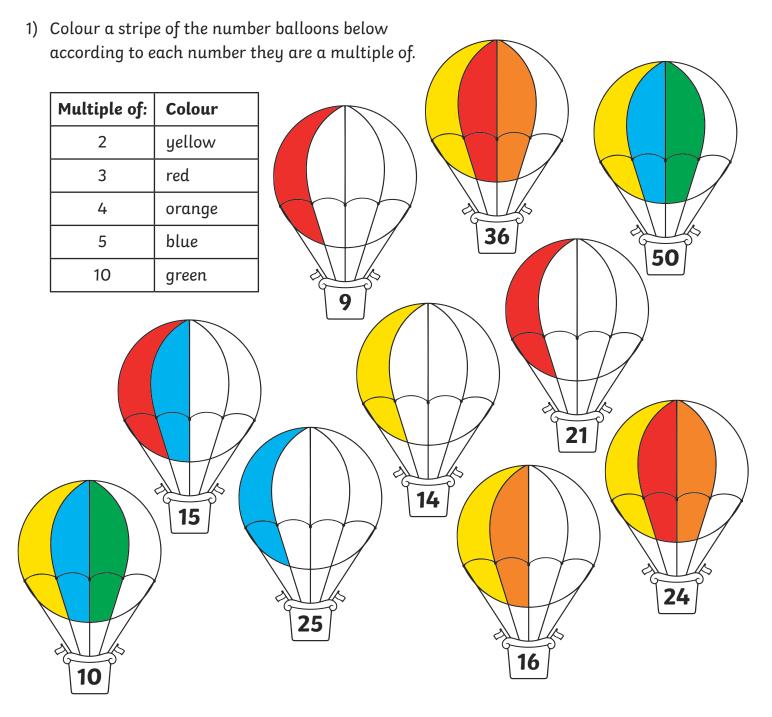
	-			-
Multiples of 3	Multiples of 5	Multiples of 7	Multiples of 9	
				1
	<u> </u>	<u> </u>		
	ubers below into the c se the rules from ques		A Stranger	The -
	\sim			140°
(117) (1	135) (300)	(414) (49)	7) (546)	Jan -
				mast
	530) (693)	(720) (900	/ ס	
				~

- 4) Which of the common multiples in the table above can be found in all 4 columns?
- 5) True or false: All multiples of 3 are also multiples of 9. Prove it.



a)

Multiples Answers



2) Which balloons have been coloured more than one colour?

10, 15, 16, 24, 36, 50

3) What is the term used to describe these numbers?

common multiples

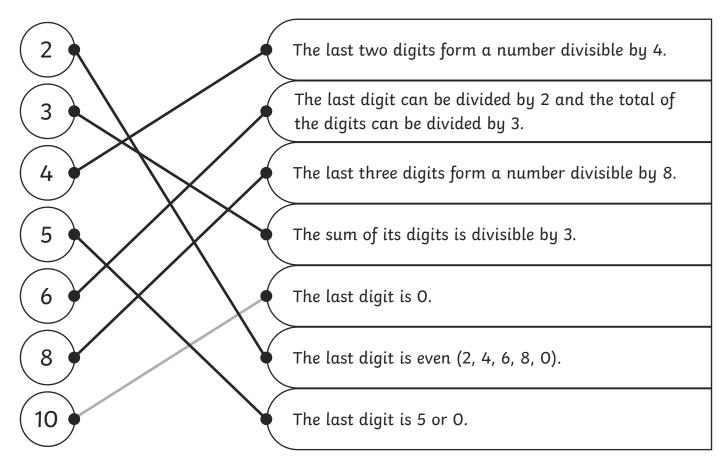
4) Which of the balloons have only been coloured once?

9, 14, 21, 25



Multiples **Answers**

1) Match the number to the rule. The first one has been done for you.



2) Fill in the table below with five possible multiples greater than 50 for each number.

Times Table	Multiple
3	Multiple answers possible.
4	Multiple answers possible.
6	Multiple answers possible.
8	Multiple answers possible.



a) Sort your answers from question 2 into the correct column.
 Children will have added their answers from the previous question to the correct column.

b)	Sort the 3-digit numbers below into the correct column. You may want to use the rules
	from question 1 to help you.

Multiples of 3	Multiples of 4	Multiples of 6	Multiples of 9
144	144	144	144
246	276	246	378
276	640	276	720
378	720	378	
417	852	720	
720	888	852	
852		888	
888			
933			

- 4) Which of the common multiples in the table above can be found in all 4 columns?144, 720
- 5) Can you find any other numbers which are common multiples of 3, 4, 6 and 8?

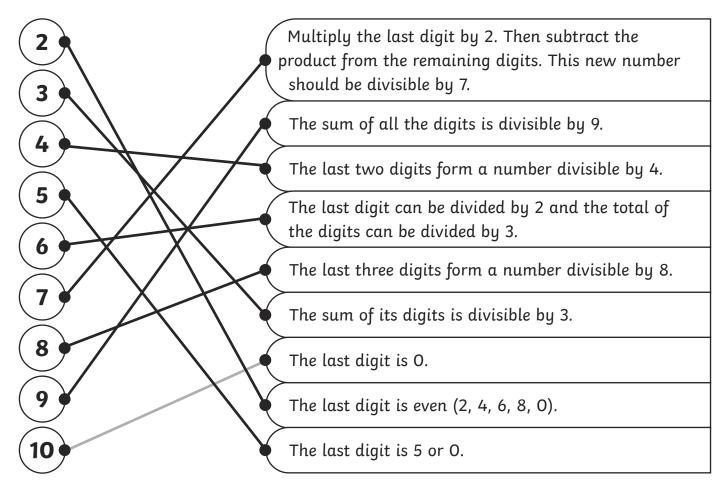
Answers will vary but may include: 120, 144, 168, 192, 216, 240 (numbers follow the pattern of +24).



3)

Multiples **Answers**

1) Match the number to the rule. The first one has been done for you.



2) Fill in the table below with five possible 3-digit multiples for each number.

Times Table	Multiple
3	Multiple answers possible.
5	Multiple answers possible.
7	Multiple answers possible.
9	Multiple answers possible.



a) Sort your answers from question 2 into the correct column.
 Children will have added their answers from the previous question to the correct column.

Multiples of 3	Multiples of 5	Multiples of 7	Multiples of 9
117	135	497	117
135	300	546	135
300	630	630	414
414	720	693	630
546	900		693
630			720
693			900
720			
900			

b) Sort the 3-digit numbers below into the correct column.You may want to use the rules from question 1 to help you.

4) Which of the common multiples in the table above can be found in all 4 columns?

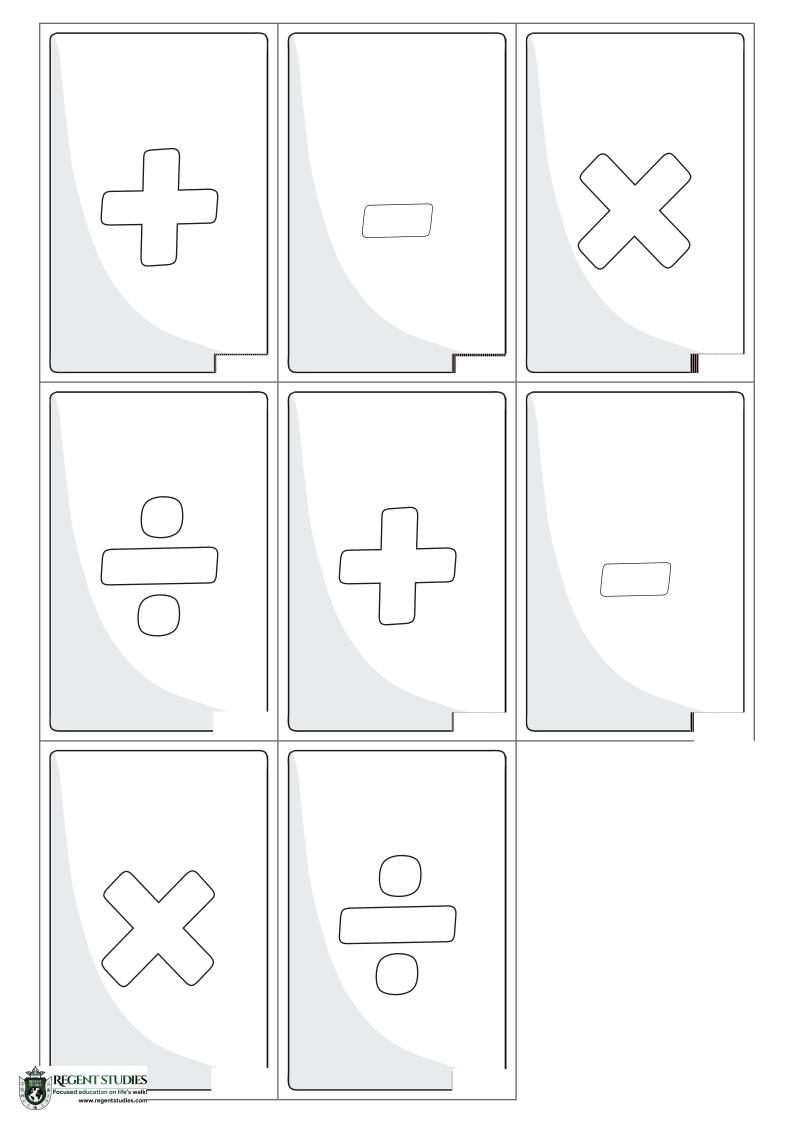
630

5) True or false: All multiples of 3 are also multiples of 9. Prove it.

False. All multiples of 9 are multiples of 3 but not all multiples of 3 are multiples of 9.

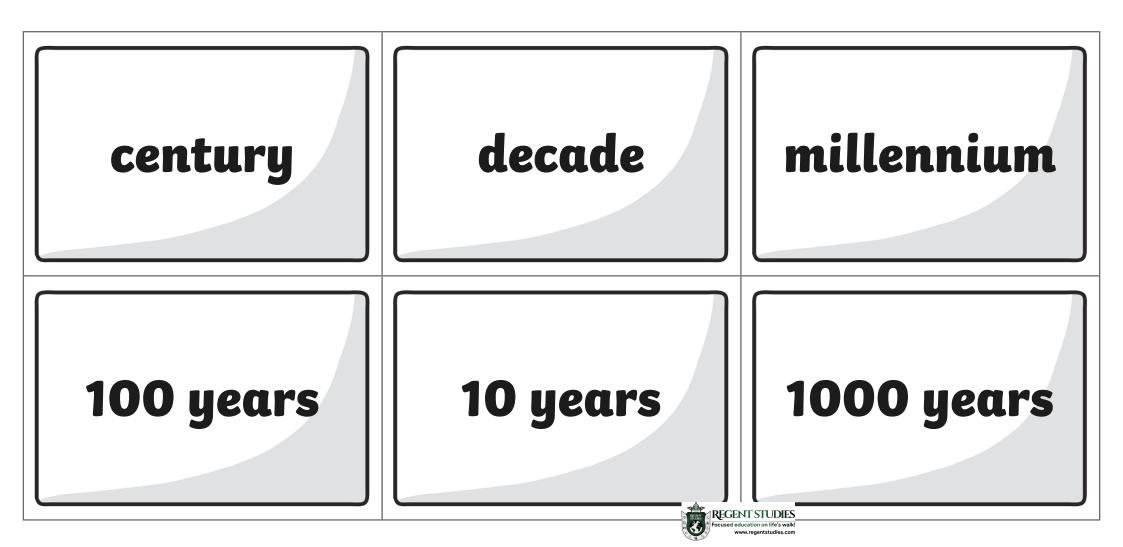
For example, 300 is a multiple of 3 because $300 \div 3 = 100$ but 300 cannot be a multiple of 9 as $300 \div 9 = 33.3333$





Time Match-Up Cards

Teacher note: These cards get progressively harder, allowing you to add some differentiation into this activity. The cards with bold text don't require any multiplication or division.

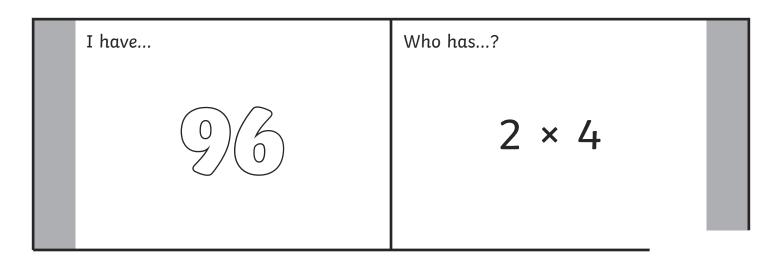




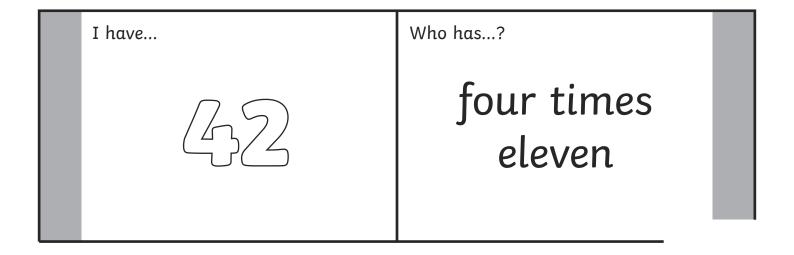






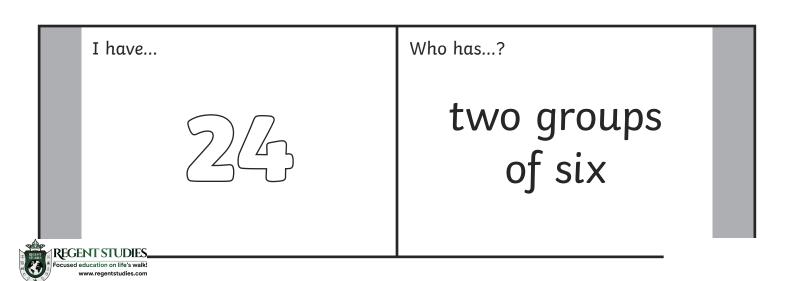


I have	Who has?	
	six groups of seven	

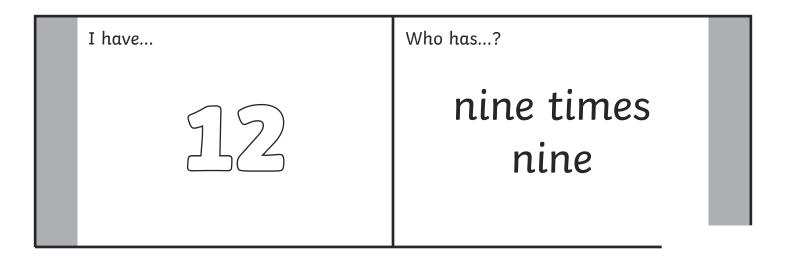


	I have	Who has?	
		10 × 12	
Focused	ENT STUDIES		

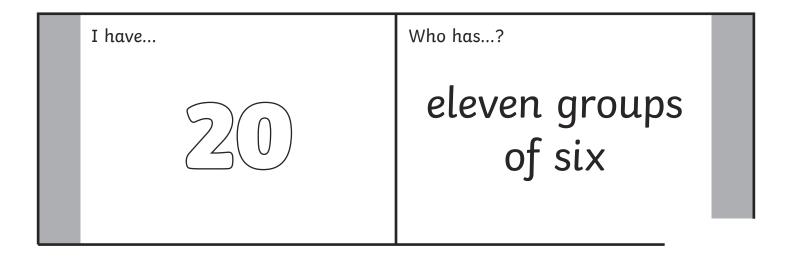
I have	Who has?
120	twelve groups of eleven
	·
I have	Who has?
132	four lots of nine
I have	Who has?
36	3 × 8

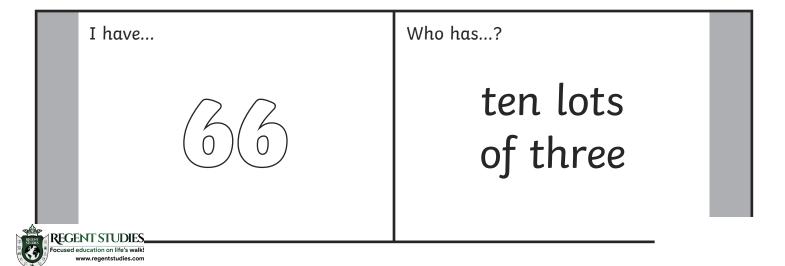


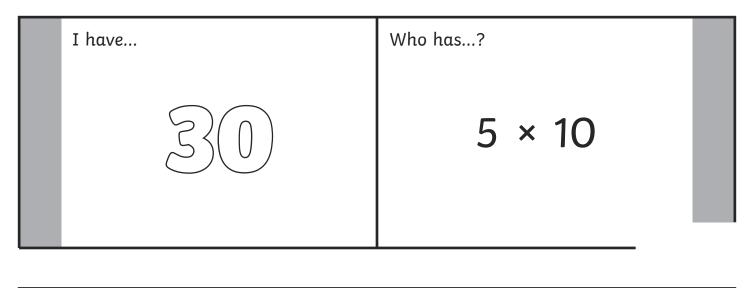
twinkl.com



I have	Who has?
31	5 × 4



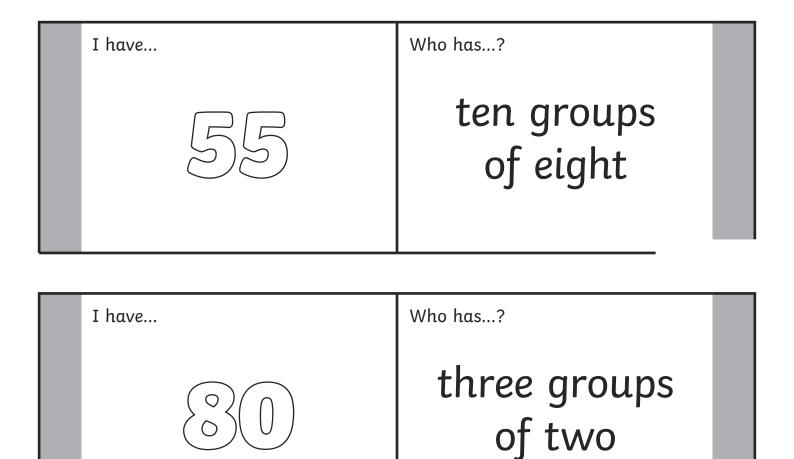




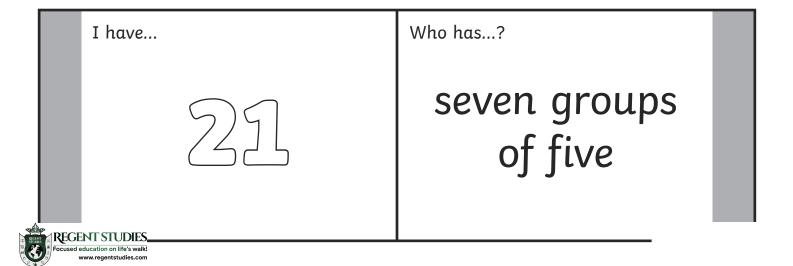
I have	Who has?
50	seven groups of eleven

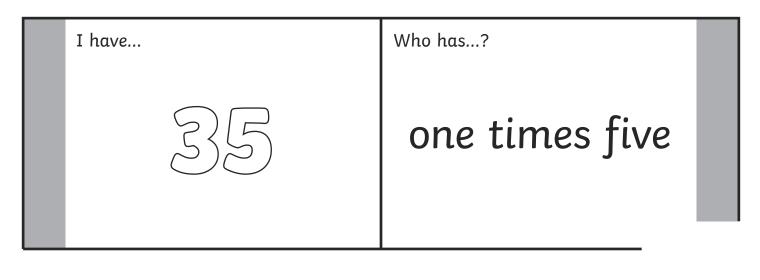
I have	Who has?
77	nine times eight

	I have	Who has?	
REGI	772 ENT STUDIES	5 × 11	
	education on life's walk! www.regentstudies.com		



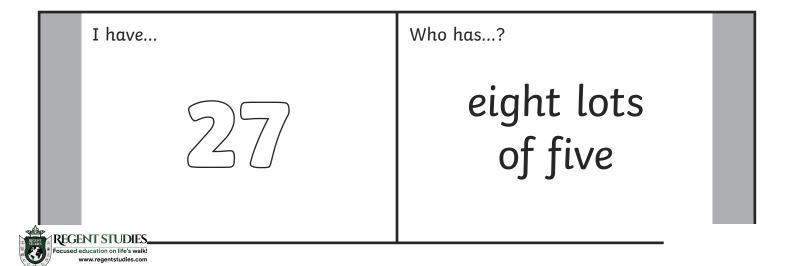
I have	Who has?
6	7 × 3

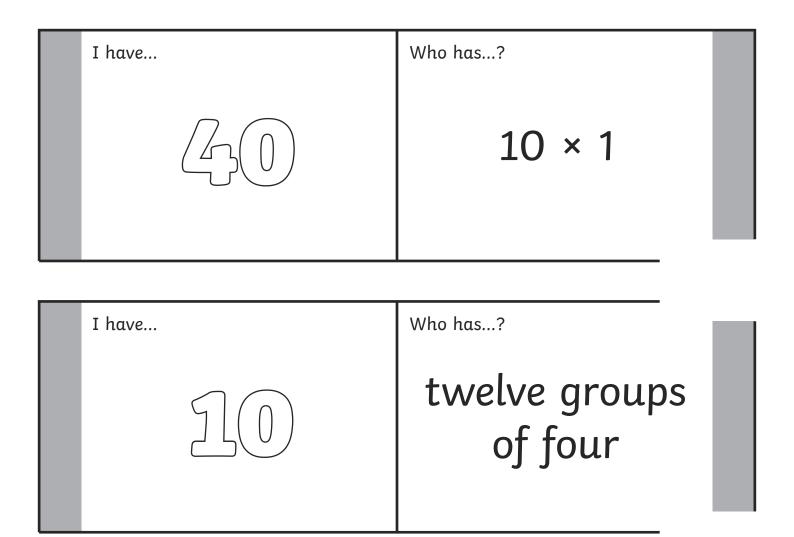


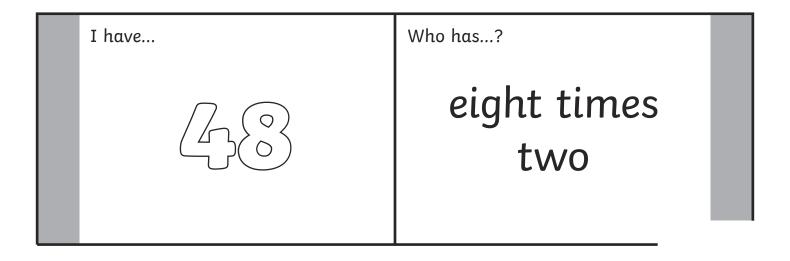


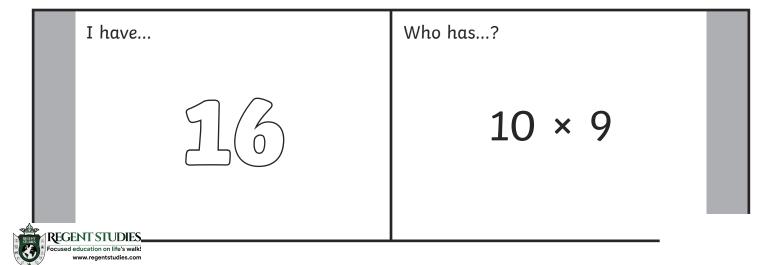
I have		Who has?	
	5	9 × 12	

I have	Who has?	
108	nine groups of three	









I have	Who has?
$ $	eight groups of seven
I have	Who has?
56	eight lots of twelve



What a Mess!

What a Mess!

Oh no! I'm so clumsy! I've just spilt chocolate sauce all over my multiplication square. Can you fill in the missing numbers for me?

Oh no! I'm so clumsy! I've just spilt chocolate sauce all over my multiplication square. Can you fill in the missing numbers for me?

×	1	2	3	4	5	6,	7	8	9	10	11	12		×	1	2	3	4	5	6,	7	8	9	10	11	12
1	1	2	3	4	5-2		-7	8	9	10	11	12		1	1	2	3	4	5-2		, 7]	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18 =	Dur	- 22	24		2	2	4	6	8	10	12	14	16	18 =	Salo Contraction of the second	-22	24
3	3	6	10	12	15	18	21 =		S Marine S Marine	-30	33	36		3	3	6	10	12	15	18	21 -			-30	33	36
4	4	8	12 =		-20	24	28	32		-40	44	48		4	4	8	12-2		-20	24	28	32		-40	44	48
5	5	10	15	20	25	30	35	40	45	50 -		-60		5	5	10	15	20	25	30	35	40	45	50 -		-60
6	6	12- e	m	-24 2			-42	48	54	60	66	72		6	6	12-2		-24 -			-42	48	54	60	66	72
7	7	14	21	28	35=	And S	-49	56-		-70	77-2	Dar's		7	7	14	21	28	35-		-49	56-		-70	77-ë	
8	9	16	24 2				-56	64 -		-80	88	96		8	9	16	24 2	S. North		S. M.	-56	64=		-80	88	96
9	9	18	27	36	45	5 4 =		72	81	90	99	108		9	9	18	27	36	45	54		-72	81	90	99	108
10	10	20	30-		-50	60	70	80	90	100	110	120		10	10	20	30-		-50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77,	88	99		1212			11	11	22	33	44	55	66	77,	88	99	Sin S	1212	
12	12	24 2	Dan S	48-	2 mil	72 -		96-	Smr S	120	132	144		12	12	24 2		482		72 2		-96-		120	132	144
		1	0	.1	0000	1	0	1	0				I I			.1	0	1	0	1	0	1	0			

Т



What a Mess! **Answers**

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

