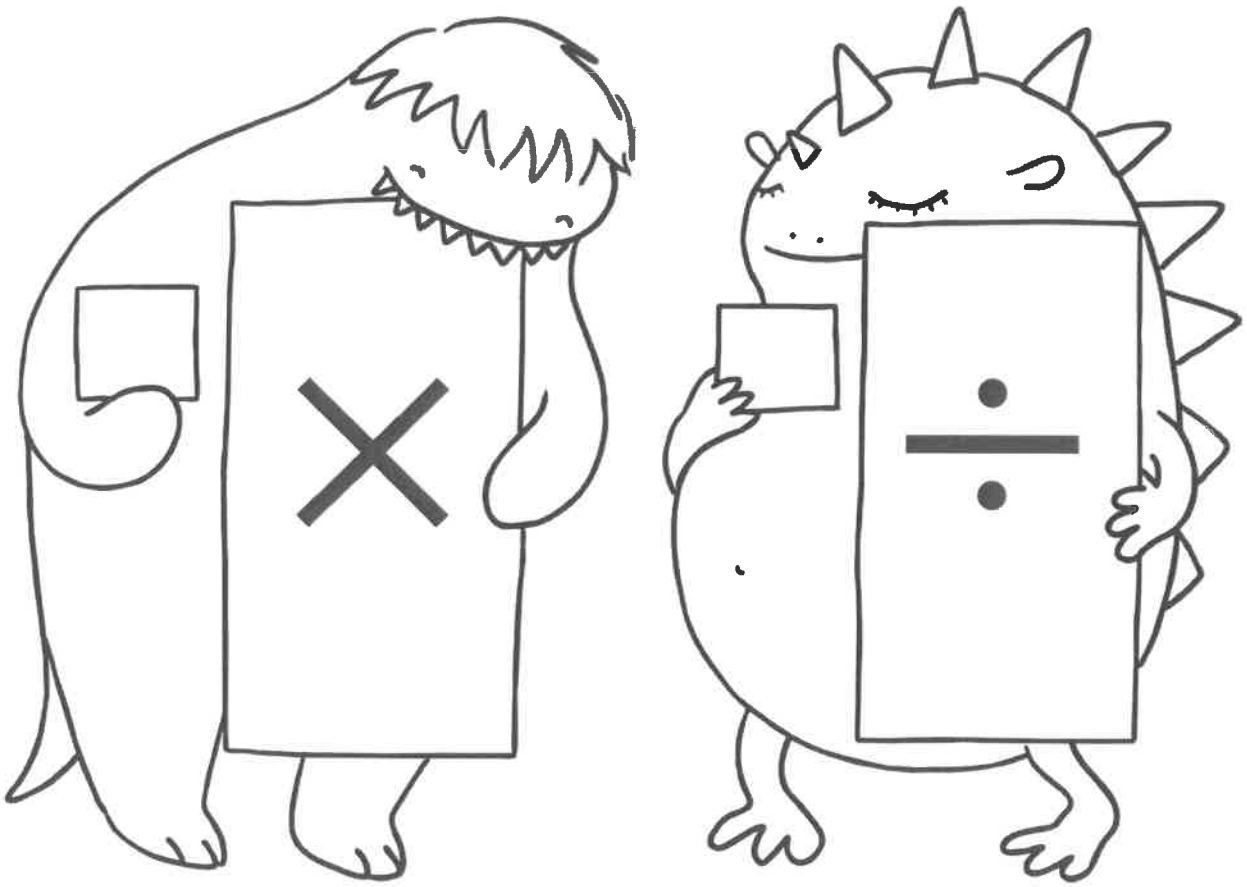
Maths

Multiplication and Division



Workbook

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Year 3 Maths:
Workbook Pack

Year 3 Programme of Study: Multiplication and Division

Word Search 4 Times table

Answer the calculations below and find the answers in the word search:

4 x 3 =

4 x 4 =

4 x 11 =

4 x 8 =

4 x 10 =

4 x 2 =

f	t	h	i	r	t	y	t	w	o
t	o	h	f	o	r	t	y	w	o
w	t	r	s	i	x	e	e	t	e
e	w	r	t	e	s	e	s	h	i
l	s	e	l	y	n	l	h	i	g
v	k	i	e	t	f	e	e	r	h
e	a	e	y	e	a	o	t	t	t
f	o	r	t	e	o	o	u	y	e
o	n	n	e	e	t	h	g	r	e
s	i	x	t	e	e	n	b	n	n

Word Search 3 Times table

Answer the calculations below and find the answers in the word search:

3 x 3 =

3 x 4 =

3 x 10 =

3 x 6 =

3 x 2 =

3 x 7 =

e	t	h	i	r	t	y	n	e	l
t	n	h	x	t	t	e	r	t	o
w	i	u	e	d	b	i	w	n	e
e	n	r	w	e	s	e	e	o	s
l	e	e	l	p	n	e	h	u	i
v	k	e	e	t	t	i	e	r	x
e	a	e	y	h	a	u	t	n	e
m	q	o	g	e	o	o	k	i	e
o	n	i	e	e	t	h	g	n	e
e	e	d	j	p	z	o	b	n	n

Word Search 8 Times table

Answer the calculations below and find the answers in the word search:

5 x 8 =

8 x 7 =

8 x 3 =

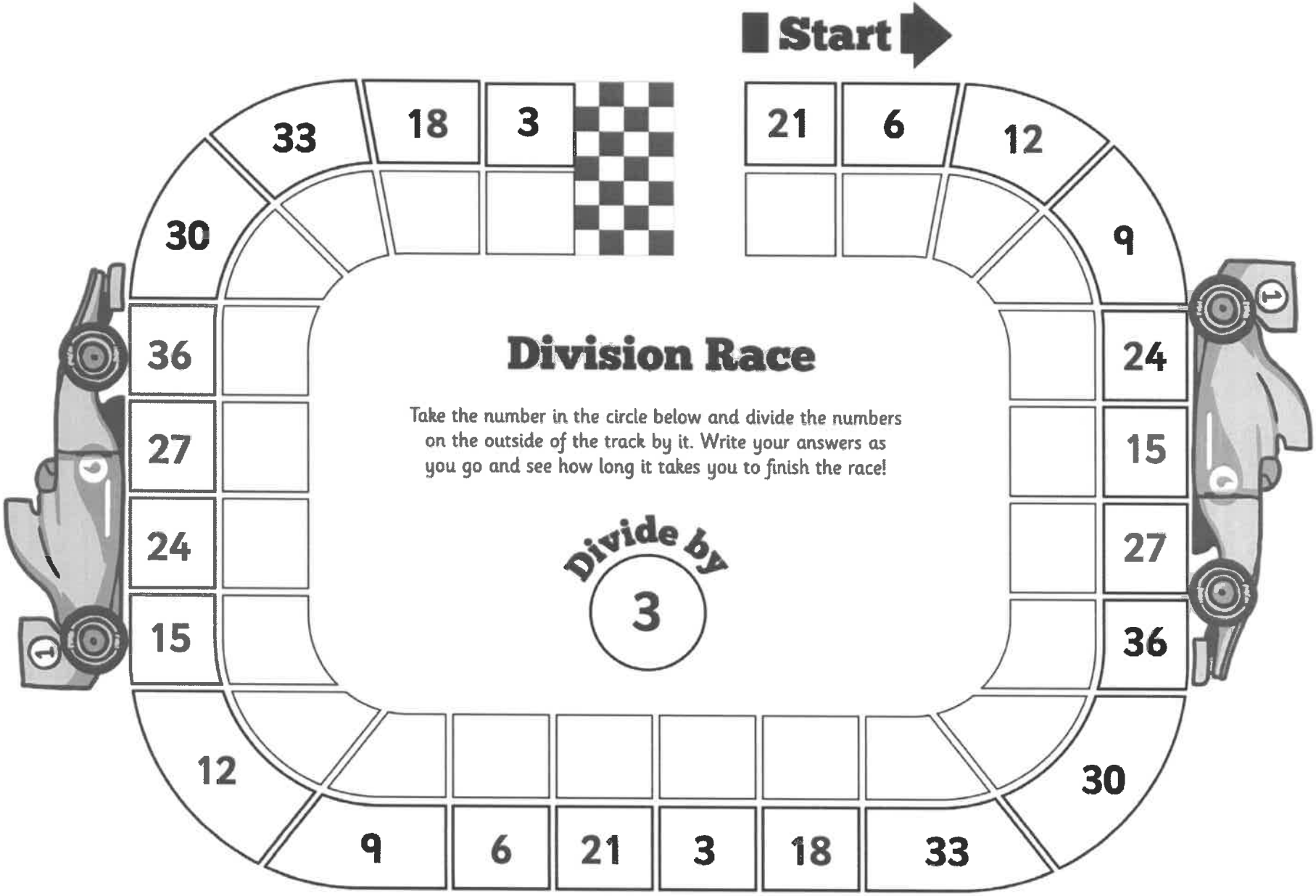
4 x 8 =

8 x 10 =

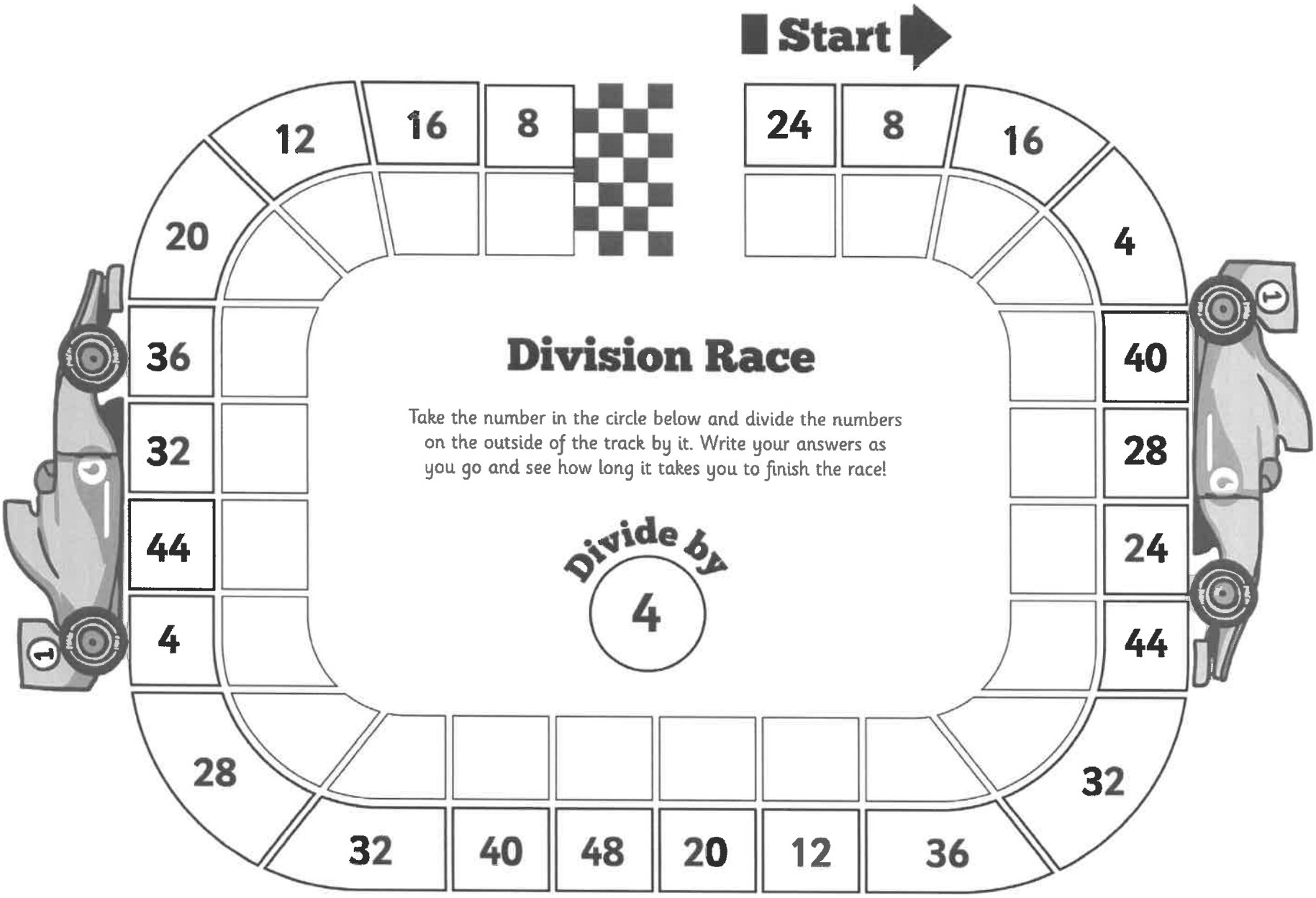
8 x 2 =

t	o	e	v	e	n	e	y	i	e
h	w	h	t	w	e	i	v	e	f
i	t	e	e	d	b	g	n	o	i
r	y	e	n	e	s	h	r	h	f
t	t	e	e	t	y	t	e	i	t
y	r	i	r	t	y	y	e	r	y
t	i	y	t	r	o	f	t	t	s
w	h	e	w	u	o	u	o	y	i
o	t	o	o	e	t	e	o	u	x
e	s	i	x	t	e	e	n	n	r

Division by 3 Race



Division by 4 Race



Division by 8 Race

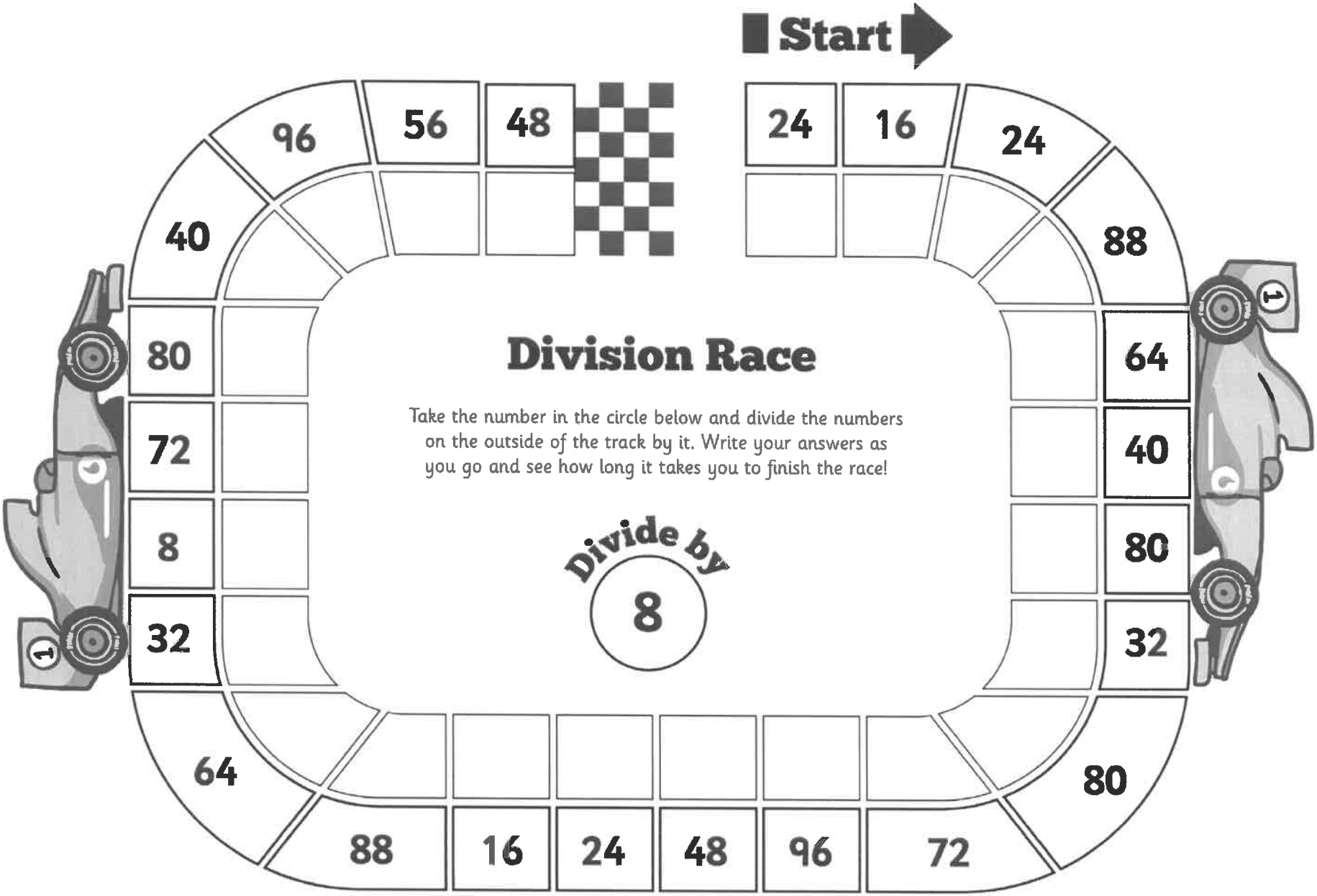


Table at the Double

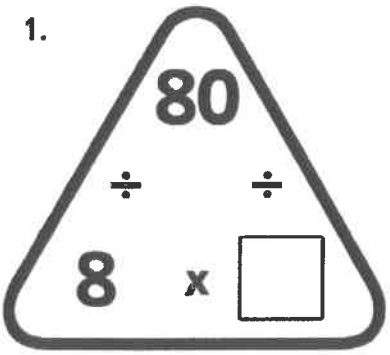
Find the 2x table by doubling each number. Find the 4x table by doubling the 2x table. Find the 8 times table by doubling the 4x table. Can you complete the whole sheet?

Number	x2	x4	x8
2	4	8	16
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
15			
20			
50			
100			

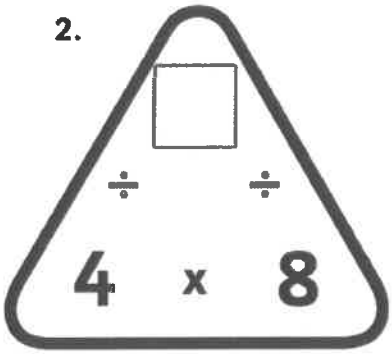
Multiplication Triangles Sheet 1

Fill in the blanks in these multiplication triangles.

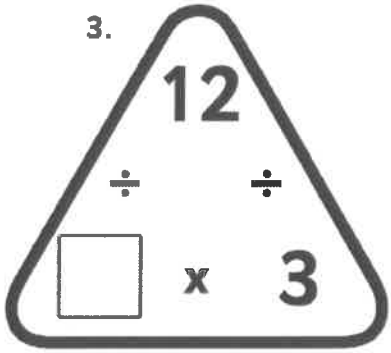
1.



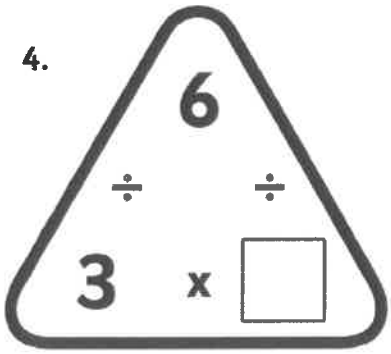
2.



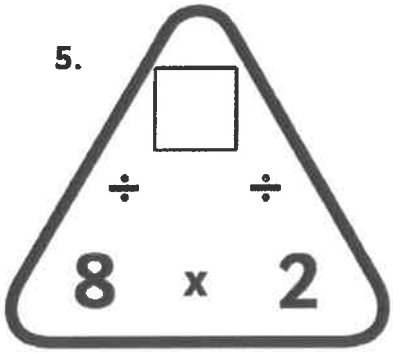
3.



4.



5.



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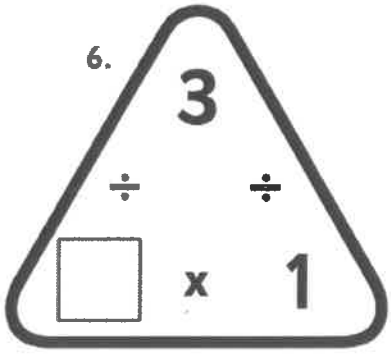

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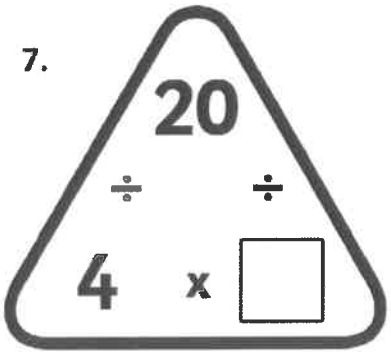
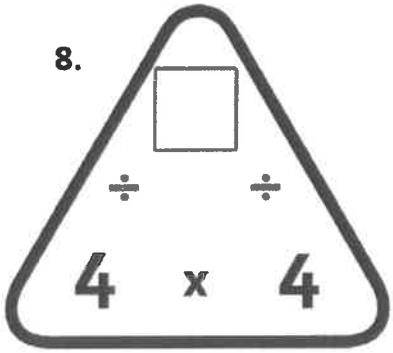
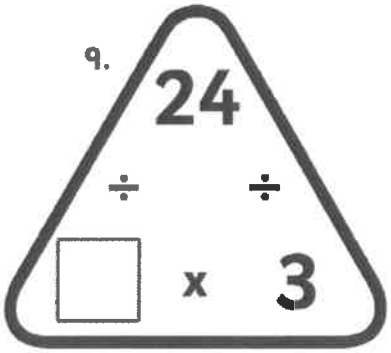


8.



9.



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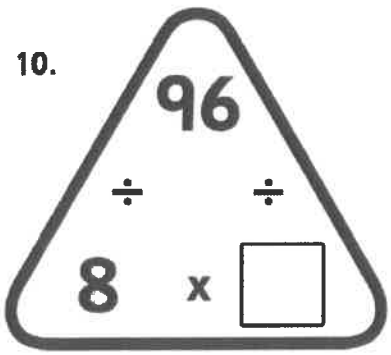

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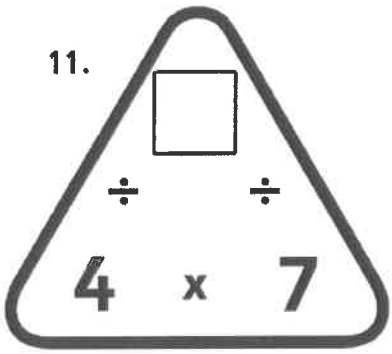

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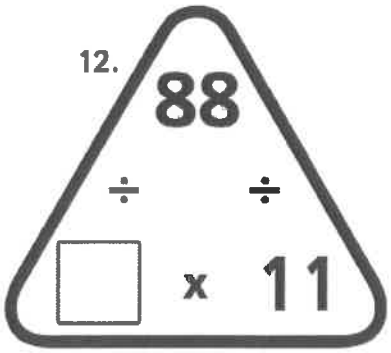
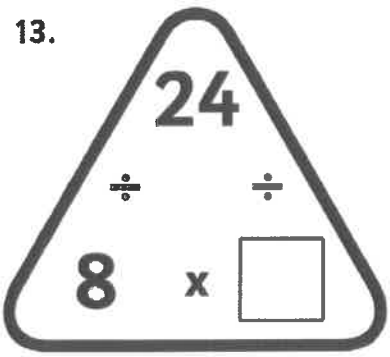


Multiplication Triangles Sheet 2

Fill in the blanks in these multiplication triangles.

13.



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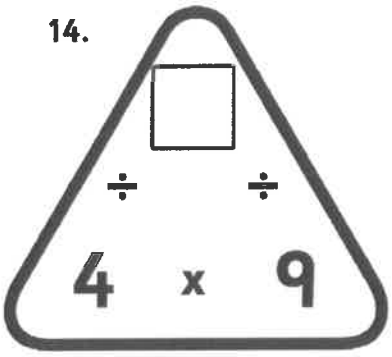

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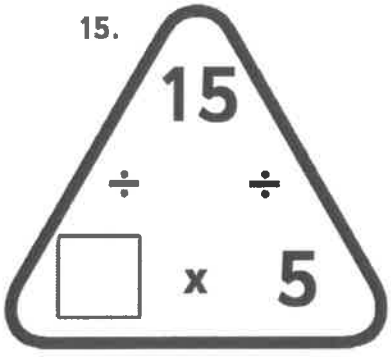

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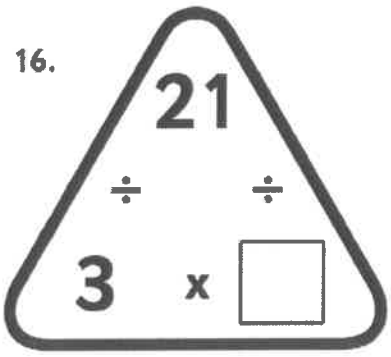

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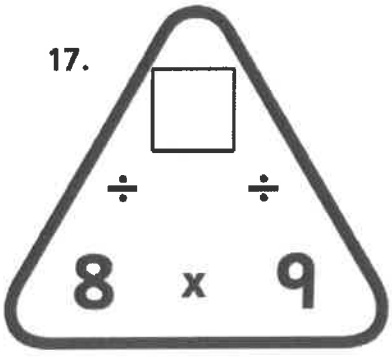

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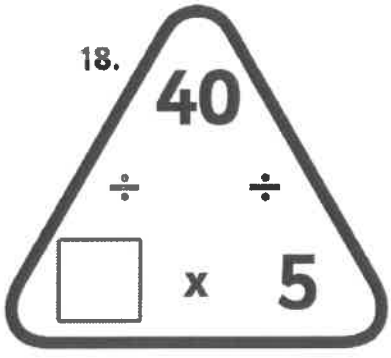

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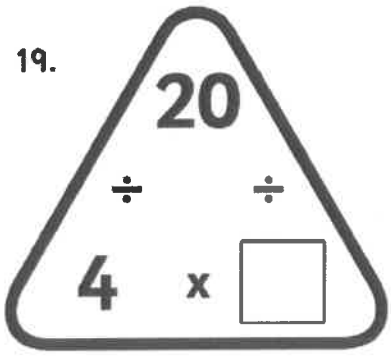

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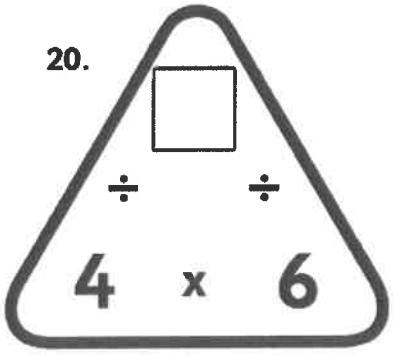

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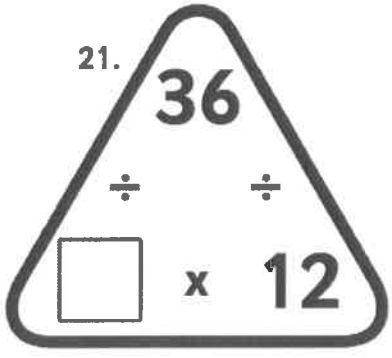

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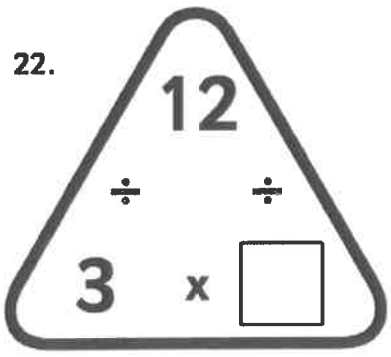

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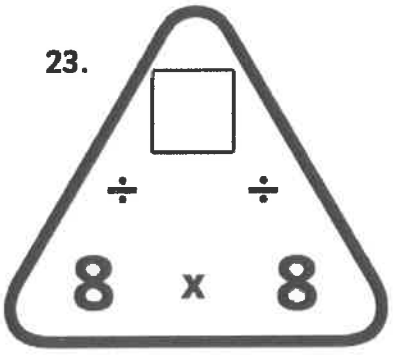

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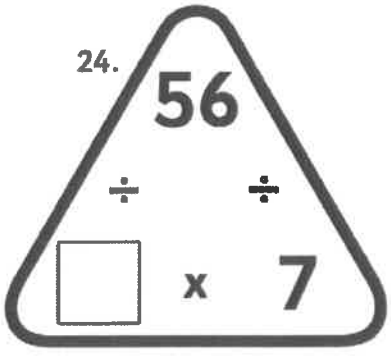


Mental Multiplication

Try using these mental calculation strategies to see how many of these calculations you can perform mentally.

x4

Double the number and then double it again.
e.g. 13 x 4 = 52
(13 x 2 = 26,
26 x 2 = 52)

x5

Multiply the number by 10 and then half it.
e.g. 14 x 5 = 70
(14 x 10 = 140, divided by 2 =7 0)

x8

Double the number, double it again and then double it a third time.
e.g. 13 x 8 = 104
(13 x 2 = 26, 26 x 2 = 52, 52 x 2 = 104)

x9

Multiply the number by 10 and then subtract the number.
e.g. 15 x 9 = 135 (15 x 10 = 150, 150 - 15 = 135)

x11

Multiply the number by 10 and then add the number.
e.g. 7 x 11 = 77 (7 x 10 = 70, 70 + 7 = 77)

x15

Multiply the number by 10 and then add half of the total.
e.g. 12 x 15 = 180
(12 x 10 = 120, 120 divided by 2 = 60, 60 + 120 = 180)

1. 14 x 4 =
2. 13 x 5 =
3. 6 x 8 =
4. 8 x 9 =
5. 9 x 11 =
6. 6 x 15 =
7. 15 x 4 =
8. 9 x 5 =
9. 12 x 8 =
10. 13 x 9 =
11. 10 x 11 =
12. 3 x 15 =
13. 15 x 4 =
14. 20 x 5 =
15. 5 x 8 =
16. 12 x 9 =
17. 13 x 11 =
18. 8 x 15 =
19. 4 x 8 =
20. 9 x 15 =
21. 11 x 15 =
22. 14 x 8 =

Multiplying 2-digit Numbers by 1-digit Numbers Using Grid Method

Multiplying 2-Digit Numbers by 1-Digit Numbers Using the Grid Method

1.

×	10	3
9		

2.

×	70	1
5		

3.

×	50	6
5		

4.

×	20	3
3		

5.

×	80	9
9		

6.

×	60	3
7		

7.

×	70	5
9		

8.

×	10	3
5		

9.

×	20	8
9		

10.

×	50	3
8		

New Bus Stop Method Formal Division of 2-digit Numbers

LO: I can use a formal method of division

1. 69 ÷ 3 =
2. 88 ÷ 4 =
3. 90 ÷ 5 =
4. 76 ÷ 4 =
5. 72 ÷ 3 =
6. 70 ÷ 5 =
7. 24 ÷ 2 =
8. 56 ÷ 4 =
9. 36 ÷ 3 =
10. 65 ÷ 5 =
11. 96 ÷ 4 =
12. 90 ÷ 6 =
13. 96 ÷ 8 =
14. 96 ÷ 6 =
15. 88 ÷ 8 =
16. 80 ÷ 4 =
17. 95 ÷ 5 =
18. 92 ÷ 4 =
19. 46 ÷ 2 =
20. 78 ÷ 6 =
21. 92 ÷ 4 =
22. 84 ÷ 4 =
23. 72 ÷ 3 =
24. 70 ÷ 7 =
25. 88 ÷ 4 =
26. 80 ÷ 5 =
27. 98 ÷ 7 =
28. 66 ÷ 3 =
29. 84 ÷ 4 =
30. 91 ÷ 7 =

Division Using a Numberline

1. 8 ÷ 2 =

8

2. 9 ÷ 3 =

9

3. 12 ÷ 4 =

4. 12 ÷ 3 =

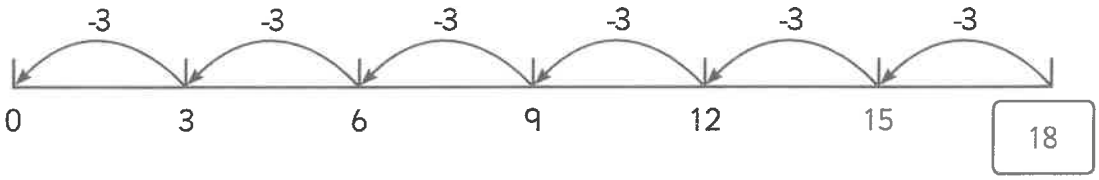
5. 18 ÷ 3 =

6. 18 ÷ 6 =

7. 36 ÷ 3 =

8. 48 ÷ 4 =

9. $18 \div 3 = 6$



10. $18 \div 6 =$

11. $28 \div 7 =$

12. $32 \div 8 =$

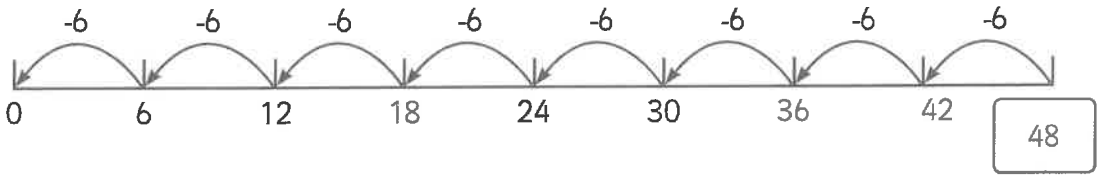
13. $42 \div 3 =$

14. $32 \div 4 =$

15. $52 \div 4 =$

16. $70 \div 5 =$

17. $48 \div 6 = 8$



18. $54 \div 6 =$

19. $96 \div 8 =$

20. $88 \div 8 =$

21. $88 \div 4 =$

22. $64 \div 8 =$

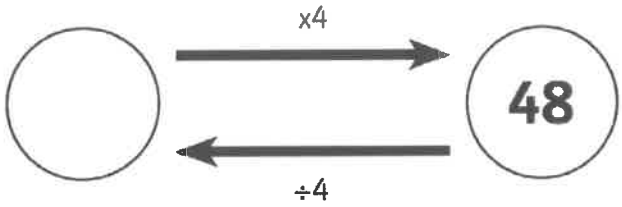
23. $91 \div 7 =$

24. $108 \div 9 =$

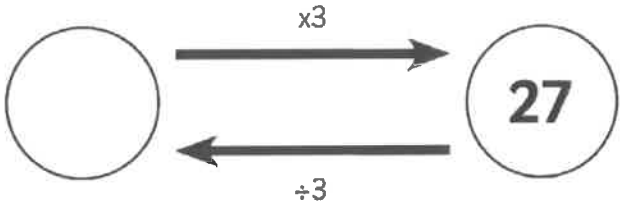
I'm Thinking of a Number

Use the inverse operation to work backwards and find the original number.

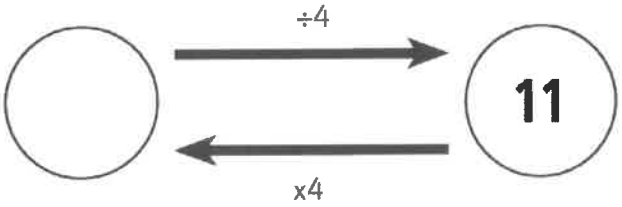
e.g. Samiya is thinking of a number. She multiplies it by 4 and her new number is 48. What number was she first thinking of?



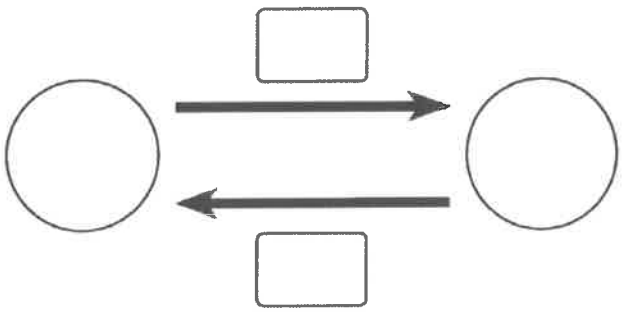
1. Nat is thinking of a number. He multiplies it by 3 and his new number is 27. What number was he first thinking of?



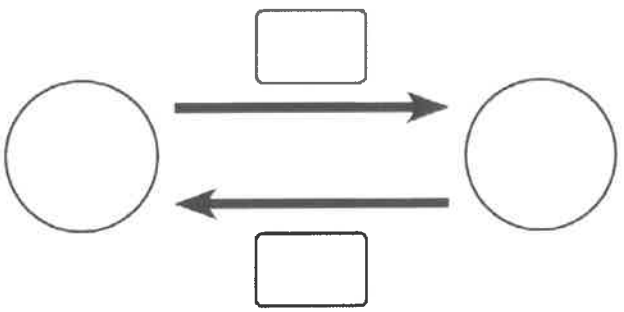
2. Shahid is thinking of a number. He divides it by 4 and his new number is 11. What number was he first thinking of?



3. Esme is thinking of a number. She divides it by 8 and her new number is 5. What number was she first thinking of?



4. Taylor is thinking of a number. He multiplies it by 3 and his new number is 24. What number was he first thinking of?



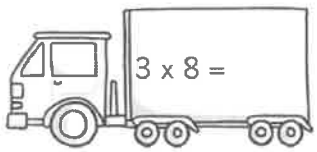
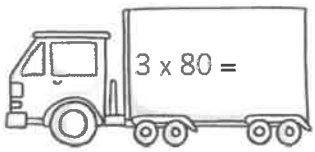
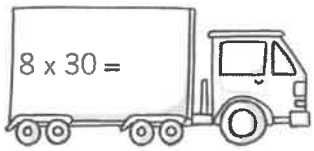
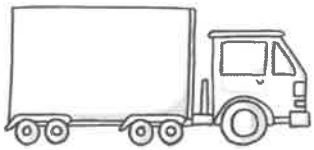
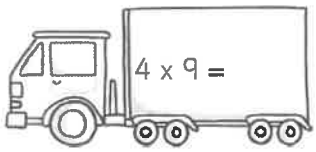
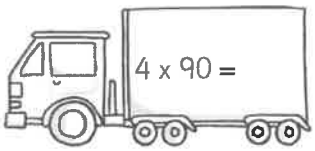
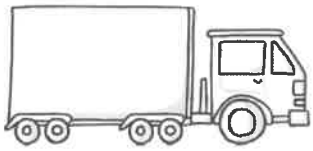
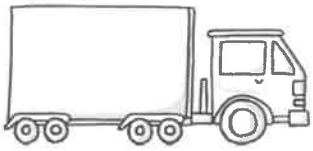
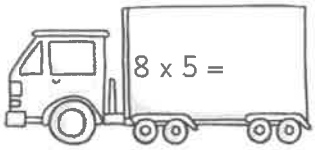
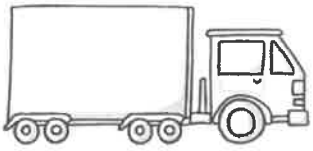
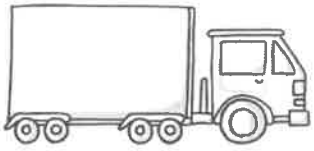
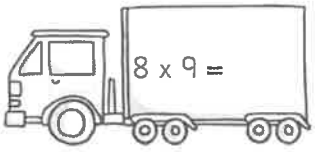
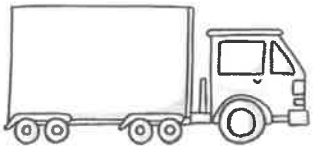
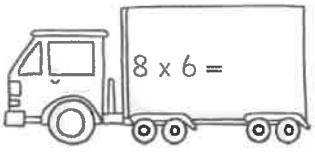
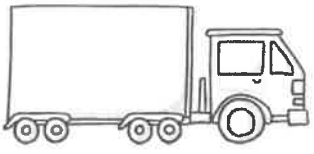
5. Levi is thinking of a number. He multiplies it by 8 and his answer is 32. What number was he first thinking of?

6. Vivi is thinking of a number. She divides it by 3 and her new number is 12. What number was she first thinking of?

Deriving Related Multiplication Facts From Known Multiplication Tables

Complete the times tables question on the small lorries then use the answers to complete the associated facts on the big lorries!

1.	3 x 4 = ☐	3 x 40 = ☐	4 x 30 = ☐	4 x 3 = ☐
2.	3 x 6 = ☐	3 x 60 = ☐	6 x 30 = ☐	6 x 3 = ☐
3.	3 x 7 = ☐	3 x 70 = ☐	7 x 30 = ☐	7 x 3 = ☐
4.	4 x 4 = ☐	4 x 40 = ☐	40 x 4 = ☐	4 x 4 = ☐
5.	4 x 7 = ☐	40 x 7 = ☐	7 x 40 = ☐	7 x 4 = ☐

6.				
7.				
8.				
9.				
10.				

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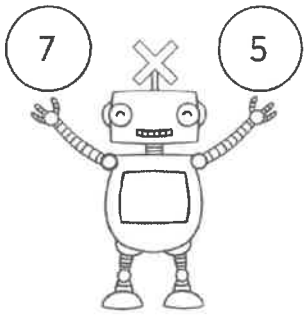

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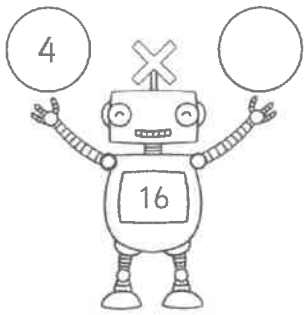

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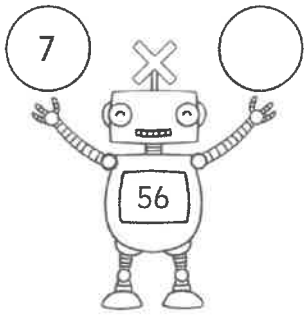

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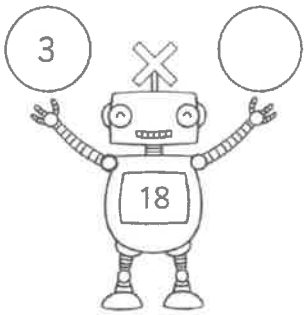

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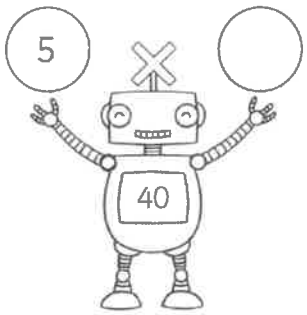

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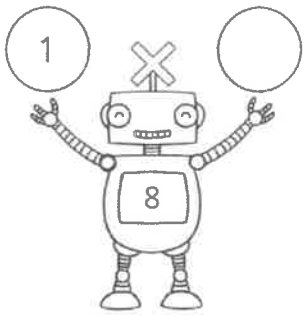

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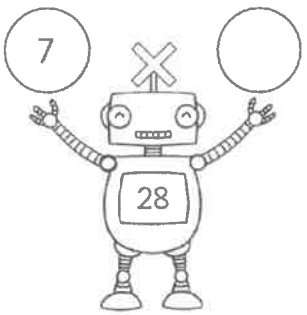

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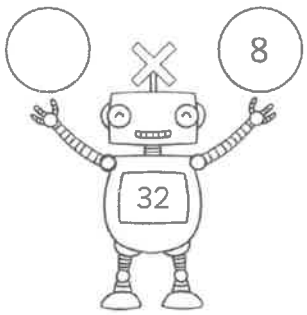

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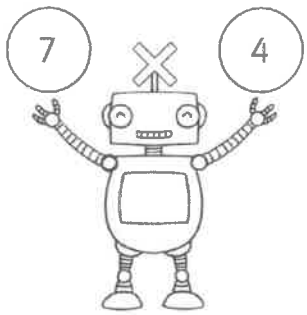

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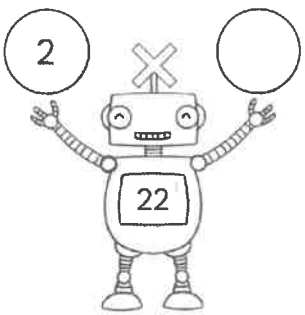

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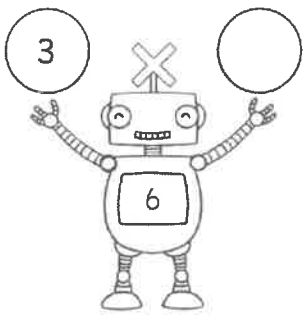

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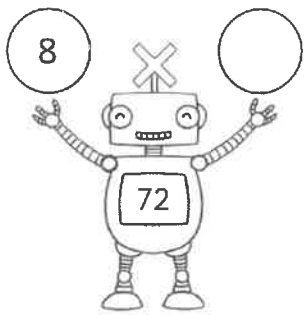

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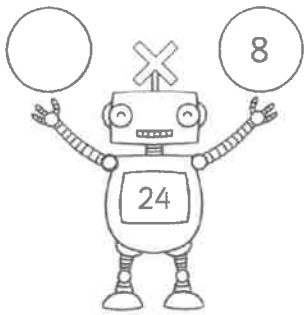

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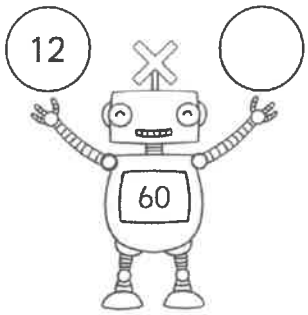

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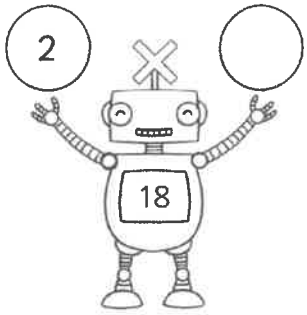

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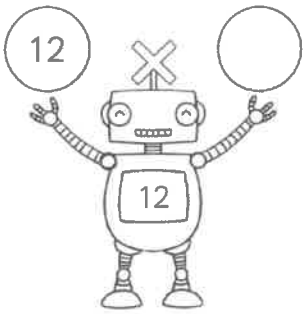

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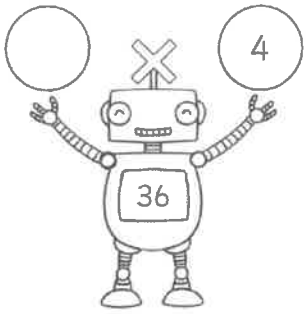

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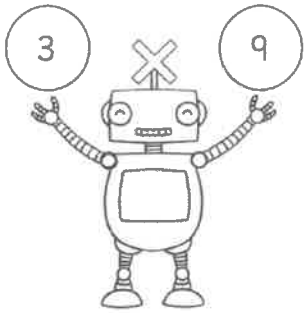

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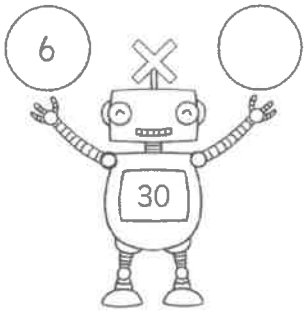

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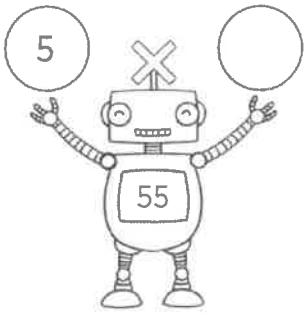

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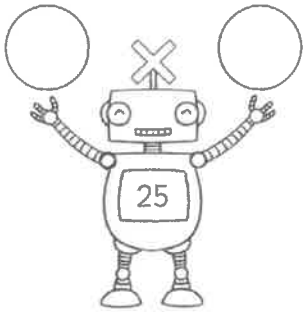

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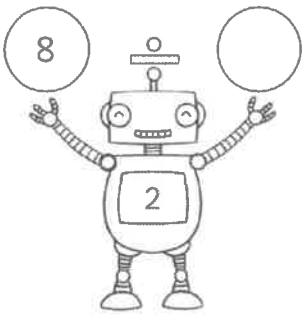

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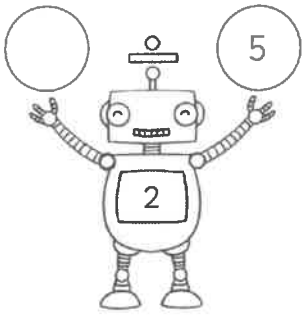

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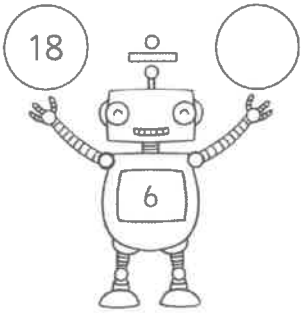

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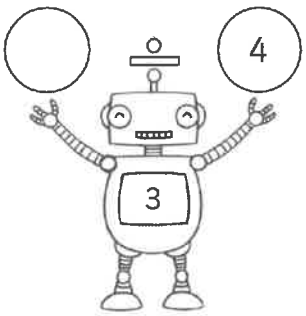

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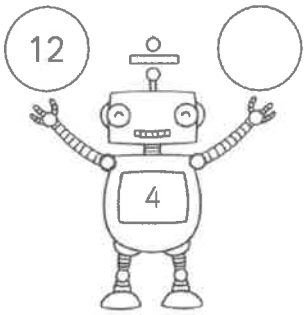

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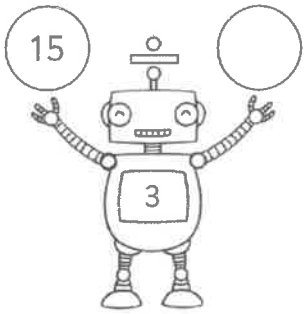

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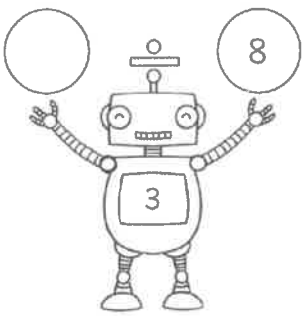

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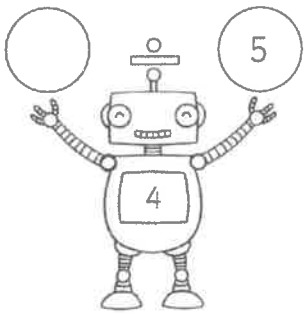

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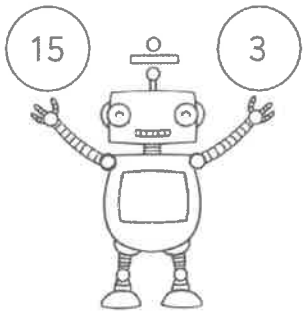

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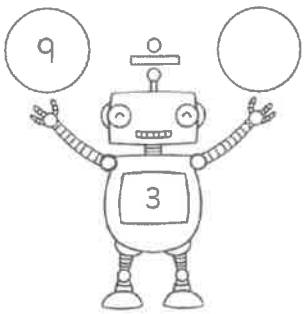

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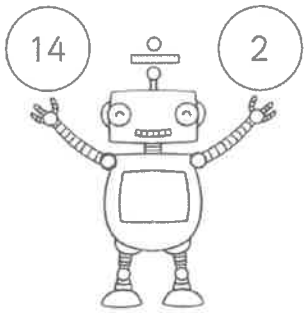

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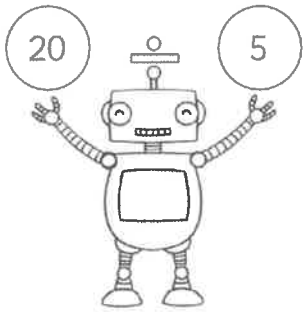

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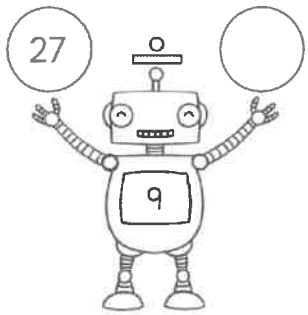

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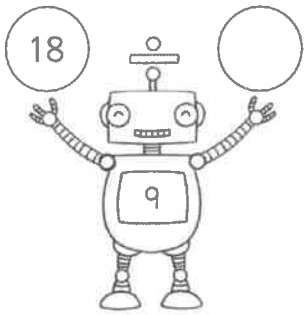

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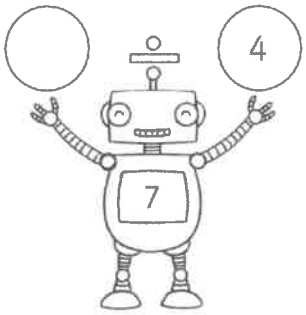

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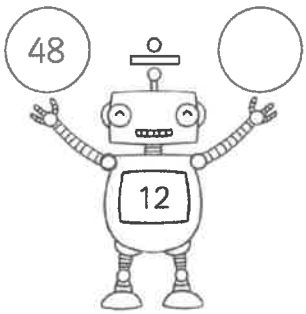

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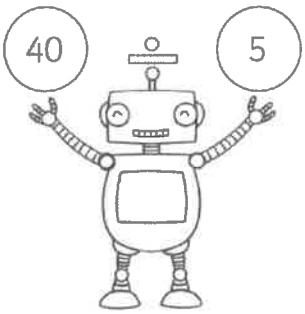

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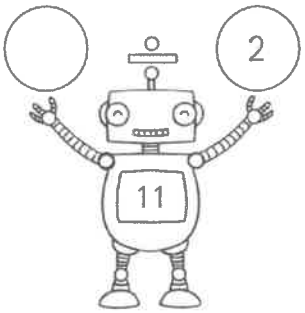

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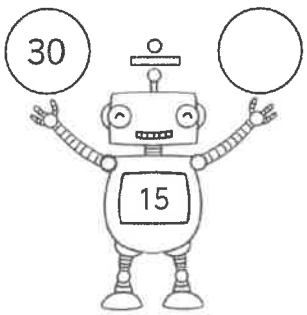

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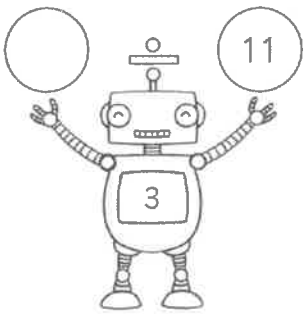

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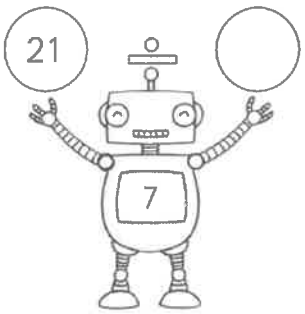
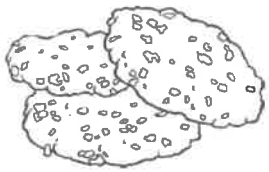


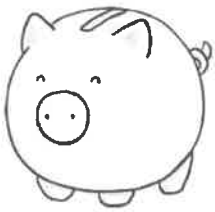
Scaling Problems

1. There are three biscuits in a packet. How many are there in seven packets?

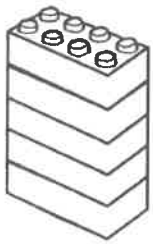


2. There are six stickers in a pack, how many packs do you need to buy to have 30 stickers?

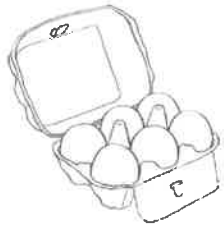
3. I have eight 5p coins in my money box. How much money do I have?



4. Joe builds a tower which is five bricks tall. Gina builds one four times as high. How many bricks does Gina use?

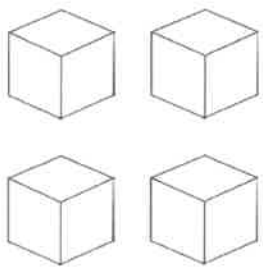


5. There are six eggs in a box – how many boxes are needed to make 48 eggs?

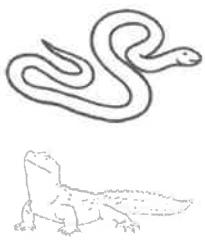


6. Danyal has a 5p coin, a 2p coin and a 1p coin. Dylan has three times as much. How much does Dylan have?

7. Lisa has four cubes. Ned has double the number of cubes that Lisa has. Mina has double the number of cubes that Ned has. How many cubes does everyone have?



8. A lizard is four centimetres long. A snake is nine times as long. How long is the snake?



Colour the Division Equation

Can you colour all the lines of three number squares that make a division equation? The line can be in any order but squares must be beside each other in a column or in a row. Squares can be part of more than one equation.

The example 15 ÷ 3 = 5 is shown below.

Round 1

15	6	8	60	5	12	1	12
5	1	5	7	16	4	23	12
3	21	4	9	7	3	1	1
8	3	20	10	2	17	16	1
4	1	1	5	3	16	2	8
32	18	9	2	2	4	7	2
25	3	15	3	4	4	4	16
18	6	1	6	9	13	9	14

Round 2

88	10	31	1	41	21	6	27
8	25	23	4	4	7	9	9
11	1	11	9	21	3	9	3
3	15	5	2	10	12	14	24
33	3	55	3	4	4	16	8
4	44	11	2	40	8	5	15
7	8	13	2	5	2	10	20
28	4	7	8	8	4	2	2

Round 3

24	12	2	1	3	7	14	35
21	17	4	9	8	10	2	5
19	20	8	4	32	2	7	7
6	10	2	20	11	5	5	25
5	5	4	5	15	3	1	3
4	2	3	6	2	36	5	2
4	18	9	10	13	12	2	6
16	16	3	27	9	14	12	15

Round 4

14	18	20	2	10	2	15	6
7	17	4	9	8	4	32	23
2	10	5	22	80	14	8	16
11	9	3	9	28	7	4	10
7	90	15	13	8	35	19	24
25	4	2	15	3	5	6	30
21	12	4	5	12	20	20	10
48	6	8	12	4	4	16	3