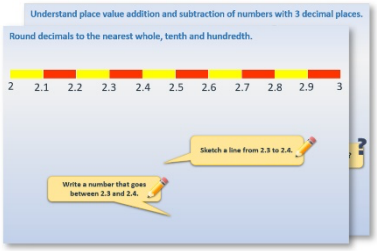
Week 6, Day 3
Multiplication and division

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. Start by reading through the **Learning Reminders**.
They come from our *PowerPoint* slides.



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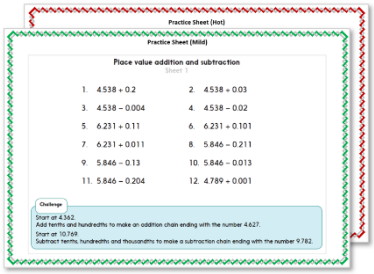
2. Tackle the questions on the **Practice Sheet**.
There might be a choice of either Mild (easier) or Hot (harder)!
Check the answers.



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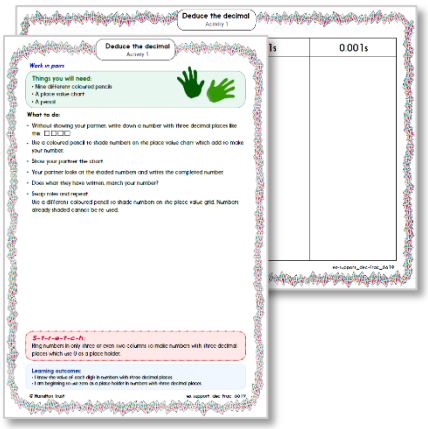
3. Finding it tricky? That's OK… have a go with a grown-up at **A Bit Stuck?**



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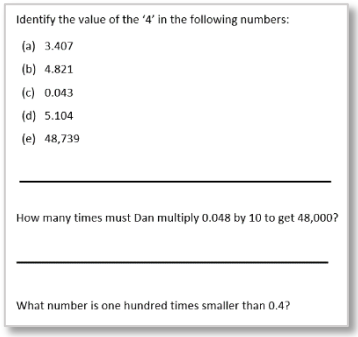
4. Have I mastered the topic? A few questions to **Check your understanding**.
Fold the page to hide the answers!



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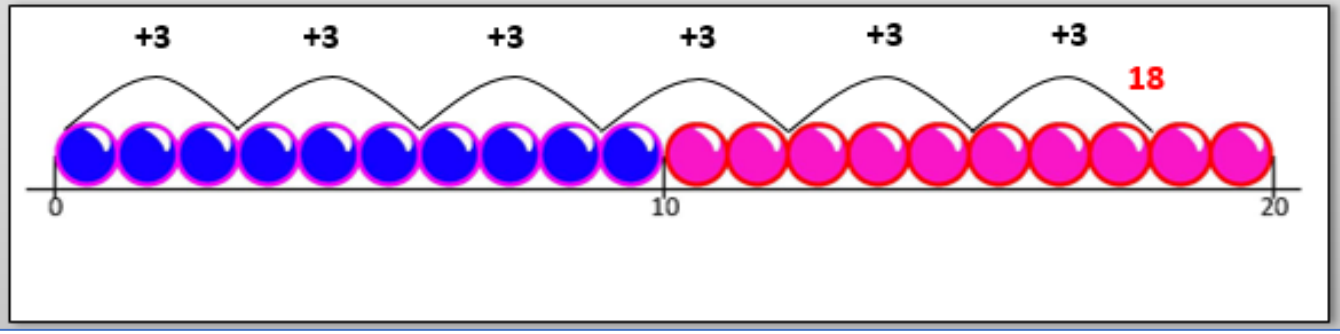
Learning Reminders

Understand how to read an array; Use beaded lines and grouping to help write division number sentences.

6 x 3 = 18.
6 lots of 3 make 18.

Let's use the beaded line to check how many groups of 3 are in 18.

6 jumps of 3 to 18 or
18 ÷ 3 = 6.



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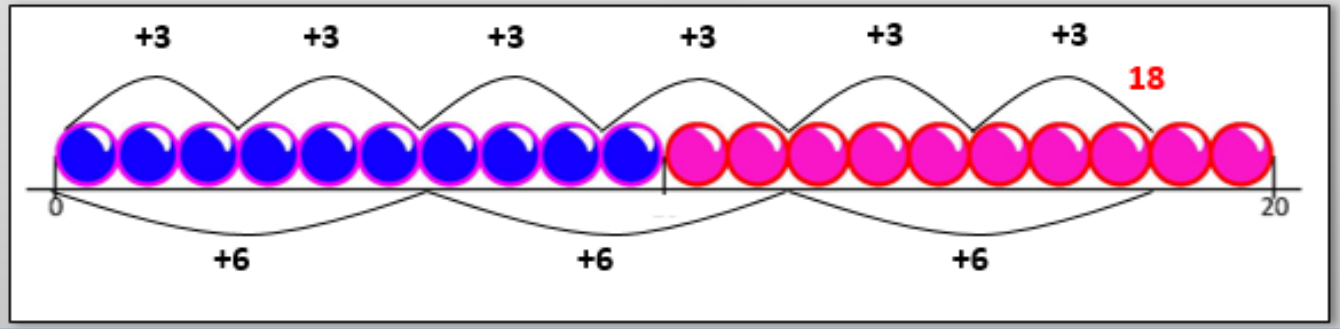
Learning Reminders

Understand how to read an array; Use beaded lines and grouping to help write division number sentences.

3 x 6 = 18.
3 lots of 6 make 18.

Let's use the bead string to check how many groups of 6 are in 18.

3 jumps of 6 to 18 or
18 ÷ 6 = 3.



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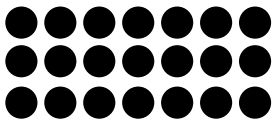
Practice Sheet Mild

Making arrays and their matching facts

Draw an array for the following numbers then use beaded lines and hops to help identify the multiplication and division facts for each number.

21



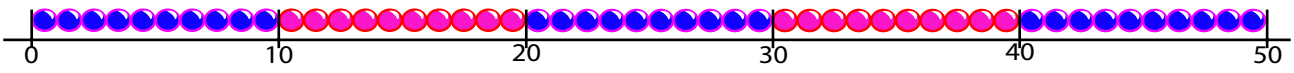
3 x 7 = ☐ 7 x 3 = ☐

21 ÷ 7 = ☐ 21 ÷ 3 = ☐

12

18

20



Challenge

Create an array for a number between 20 and 30 and write a multiplication and division fact for your array.

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Practice Sheet Hot

Making arrays and their matching facts

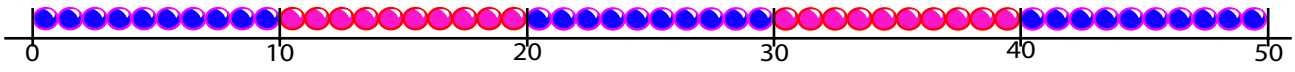
Draw an array for the following numbers then use beaded lines and hops to help identify the multiplication and division facts for each number.

30

32

27

28



Challenge

Create an array for a number between 32 and 40 and write a multiplication and division fact for your array.

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Practice Sheets Answers

Making arrays and their matching facts (mild)

21

Possible arrays: 1 x 21, 21 x 1, 3 x 7, 7 x 3

21 x 1 = 21	21 ÷ 1 = 21	1 x 21 = 21	21 ÷ 21 = 1		
3 x 7 = 21	21 ÷ 3 = 7	7 x 3 = 21	21 ÷ 7 = 3		

12

Possible arrays: 1 x 12, 12 x 1, 2 x 6, 6 x 2, 3 x 4, 4 x 3

1 x 12 = 12	12 ÷ 1 = 12	12 x 1 = 12	12 ÷ 12 = 1	2 x 6 = 12	12 ÷ 2 = 6
6 x 2 = 12	12 ÷ 6 = 2	3 x 4 = 12	12 ÷ 3 = 4	4 x 3 = 12	12 ÷ 4 = 3

18

Possible arrays: 1 x 18, 18 x 1, 2 x 9, 9 x 2, 3 x 6, 6 x 3

1 x 18 = 18	18 ÷ 1 = 18	18 x 1 = 18	18 ÷ 18 = 1	2 x 9 = 18	18 ÷ 2 = 9
9 x 2 = 18	18 ÷ 9 = 2	3 x 6 = 18	18 ÷ 3 = 6	6 x 3 = 18	18 ÷ 6 = 3

20

Possible arrays: 1 x 20, 20 x 1, 2 x 10, 10 x 2, 4 x 5, 5 x 4

1 x 20 = 20	20 ÷ 1 = 20	20 x 1 = 20	20 ÷ 20 = 1	2 x 10 = 20	20 ÷ 2 = 10
10 x 2 = 20	20 ÷ 10 = 2	4 x 5 = 20	20 ÷ 4 = 5	5 x 4 = 20	20 ÷ 5 = 4

Challenge

Accept any arrays with an accompanying multiplication and division fact.

Making arrays and their matching facts (hot)

30

Possible arrays: 1 x 30, 30 x 1, 2 x 15, 15 x 2, 3 x 10, 10 x 3, 5 x 6, 6 x 5

1 x 30 = 30	30 ÷ 1 = 30	30 x 1 = 30	30 ÷ 30 = 1	2 x 15 = 30	30 ÷ 2 = 15
15 x 2 = 30	30 ÷ 15 = 2	3 x 10 = 30	30 ÷ 3 = 10	10 x 3 = 30	30 ÷ 10 = 3
5 x 6 = 30	30 ÷ 5 = 6	6 x 5 = 30	30 ÷ 6 = 5		

32

Possible arrays: 1 x 32, 32 x 1, 2 x 16, 16 x 2, 4 x 8, 8 x 4

32 x 1 = 32	32 ÷ 32 = 1	2 x 16 = 32	32 ÷ 2 = 16	1 x 32 = 32	32 ÷ 1 = 32
4 x 8 = 32	32 ÷ 4 = 8	8 x 4 = 32	32 ÷ 8 = 4	16 x 2 = 32	32 ÷ 16 = 2

27

Possible arrays: 1 x 27, 27 x 1, 3 x 9, 9 x 3

27 ÷ 27 = 1	3 x 9 = 27	27 ÷ 3 = 9	1 x 27 = 27	27 ÷ 1 = 27	27 x 1 = 27
			9 x 3 = 27	27 ÷ 9 = 3	

28

Possible arrays: 1 x 28, 28 x 1, 2 x 14, 14 x 2, 4 x 7, 7 x 4

1 x 28 = 28	28 ÷ 1 = 28	28 x 1 = 28	28 ÷ 28 = 1	2 x 14 = 28	28 ÷ 2 = 14
14 x 2 = 28	28 ÷ 14 = 2	4 x 7 = 28	28 ÷ 4 = 7	7 x 4 = 28	28 ÷ 7 = 4

Challenge

Accept any arrays with an accompanying multiplication and division fact.

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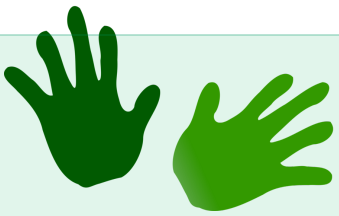
A Bit Stuck?
Beads and rings

Work in pairs

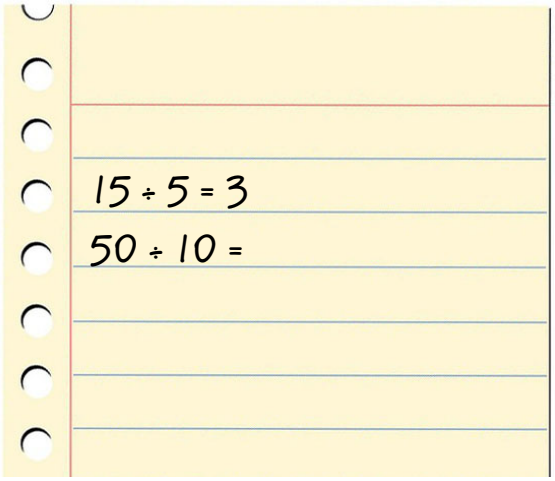
Things you will need:

- A pencil
- A set of division cards
- 0 to 50 beaded lines



What to do:

- Spread the division cards face up on the table.
- Choose a division to work out.
- Label the first number on the beaded line. Draw rings round groups of 3, 5 or 10 to work out how many 3s, 5s or 10s are in that number.
- Write the division.
- Repeat at least three more times.
- Score a point for each correct division. Score a bonus point for any answer over 5.



S-t-r-e-t-c-h:

Write multiplications to go with some of your divisions.

Learning outcomes:

- I can ring groups on a beaded line or use 'clever counting' to divide by 3, 5 and 10 (whole number answers less than 10).
- I am beginning to see the link between multiplication and division.

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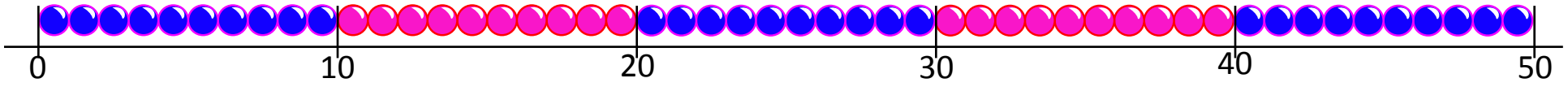
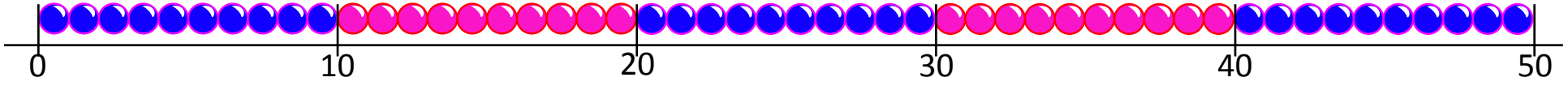
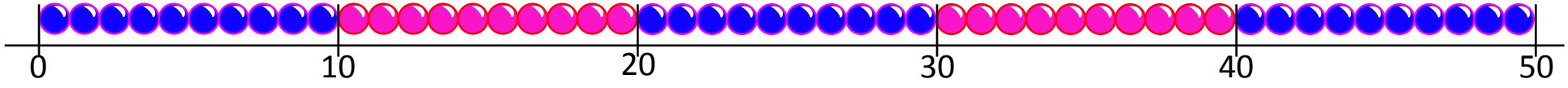
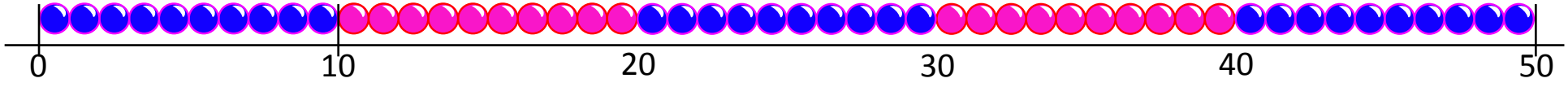
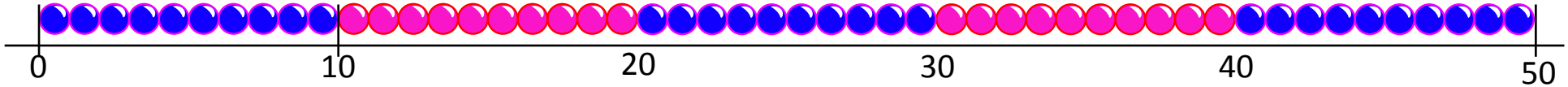
A Bit Stuck?
Beads and rings











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A Bit Stuck?
Beads and rings

15 ÷ 5	50 ÷ 10	9 ÷ 3	15 ÷ 3
30 ÷ 10	40 ÷ 10	12 ÷ 3	30 ÷ 5
21 ÷ 3	30 ÷ 3	40 ÷ 5	50 ÷ 5

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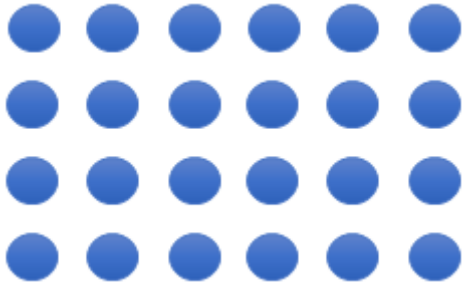
Check your understanding

Questions

How many hops to count in 3s along the beaded line to reach 21?

How many hops to count in 5s to reach 50?

Write two multiplications and two divisions to match this array:



Can you write the multiplication and division facts represented by this bar model?

15		
5	5	5

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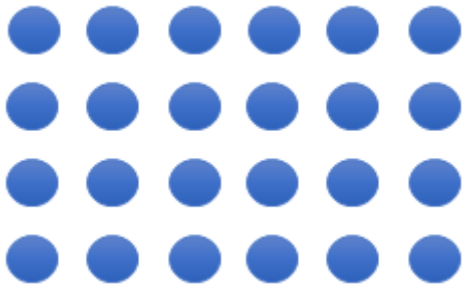
Check your understanding

Answers

How many hops to count in 3s along the bead bar to reach 21? 7.

How many hops to count in 5s to reach 50? 10.

Write two multiplications and two divisions to match this array:



4 × 6 = 24 6 × 4 = 24 24 ÷ 4 = 6 24 ÷ 6 = 4

Can you write the multiplication and division facts represented by this bar model?

15		
5	5	5

3 × 5 = 15 15 ÷ 5 = 3

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