

ESSENTIALmaths revisit slides

- The following slides have ‘destination questions’ taken from our ESSENTIALmaths plans which are matched to the primary national curriculum in England.
- The banner at the top indicates which year group and term each task relates to.
- Whilst the majority of tasks are pitched at the year group expectations, some are more complex and are labelled as ‘activities for exploring ideas at greater depth’.

In this teal box there will be an idea of how to tweak the task to make it more challenging.

We’ve love to hear how you get on!

The @hertsmaths team

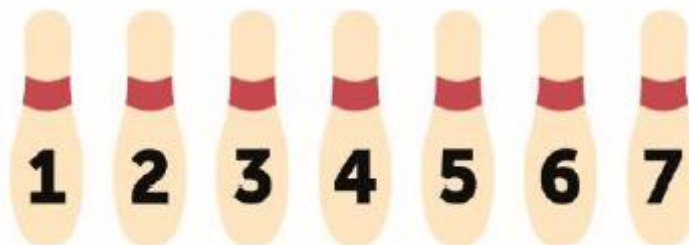


Year 1 Autumn Term 1 revisit – from Learning Sequence 1LS7

Score 7

Tom is bowling. Which pins must he knock down to **score 7**?

How many ways can he do it?



CHALLENGE: Can you prove you have found all the possible combinations?



Year 2 Autumn Term 1 revisit – from Learning Sequence 2LS6



What is this number?

Where would it go on this number line?



CHALLENGE: Change the end number on the stick to a different number (between 50 and 100) and now mark on where the mystery number would go. What do you notice?

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Year 3 Autumn Term 1 revisit – from Learning Sequence 3LS8

$$\begin{array}{r} \text{D} \text{ B} \text{ A} \\ + \text{A} \text{ C} \text{ 5} \\ \hline \text{5} \text{ 5} \text{ B} \end{array}$$

CHALLENGE: Can you create your own which would involve regrouping across at least one column?



Year 4 Autumn Term 1 revisit – from Learning Sequence 4LS4

Aiden was finding the total of 654 and 1153.
This is what he did. How would you help Aiden?

$$\begin{array}{r} \\ \\ + \\ \hline \\ \\ \hline \end{array}$$

Emma has completed her addition calculations.
Is she correct? What advice would you give her?

$$\begin{array}{r} \\ \\ + \\ \hline \\ \\ \hline \end{array}$$

CHALLENGE: Can you help Emma by drawing a pictorial model of what happens at each stage of the calculation?



Year 5 Autumn Term 1 revisit – from Learning Sequence 5LS8

A 10 x 10 multiplication square has been mixed up.

Can you work out which factors should be written in the shaded boxes?

Where can you not start? Where can you start?

Where next? Why?

x										
			28	42	21	56				
		15								
		30								
		20								
		40								
										100
									4	
								81		
							1			

CHALLENGE: Can you explain the significance of square numbers in this task?



Year 6 Autumn Term 1 revisit – from Learning Sequence 6LS8

Use the clues to work out what the total mass of the three bags of oranges is.

- Bag A is $2\frac{3}{4}$ kg
- Bag B is $1\frac{1}{4}$ kg heavier than bag A
- Bag C is $\frac{2}{5}$ kg lighter than A.

CHALLENGE: Write two truths and one lie to describe the relationship between the three bags.



Year 4 Autumn Term 2 revisit – from Learning Sequence 1LS13

CHALLENGE: Can you create a board where player A would have 3 more numbers than player B?

19	2	5
7	13	16
11	8	10

Player 1 is collecting odd numbers and Player 2 is collecting even numbers.

Which player will collect the most numbers?












Year 2 Autumn Term 2 revisit – from Learning Sequence 2LS10

Activities for exploring ideas at greater depth

Work out the value of , , .

CHALLENGE: Is it possible to know whether the star is an odd or even number without working out the value?

Explain your thinking.

			17
			9
			14
14	11	15	

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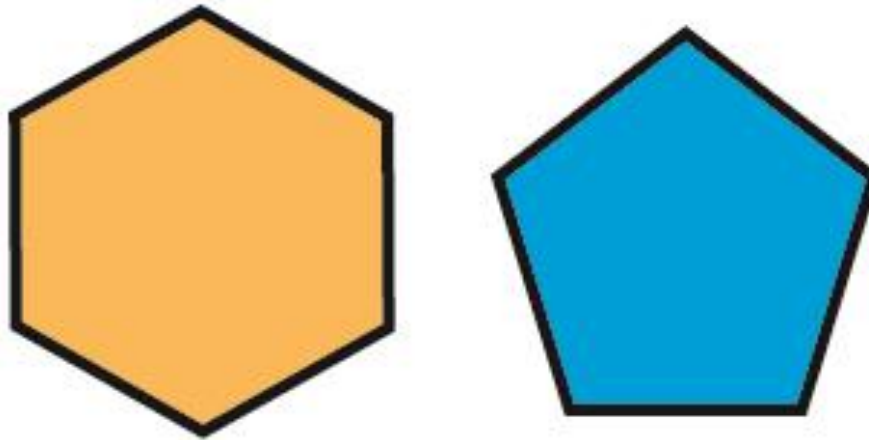


Year 3 Autumn Term 2 revisit – from Learning Sequence 3LS15

**Both of these regular shapes have sides of 3cm.
Tick the shape that has the shortest perimeter.**

CHALLENGE:

What do you notice
about the number of
sides and the perimeter
of shapes when the
length of the sides are
the same?
Is this always true?



Year 4 Autumn Term 2 revisit – from Learning Sequence 4LS7

1 3 4 12 16 48

Use the numbers to complete these multiplication sentences.
You can only use each number once.

CHALLENGE:

$$\square \times \square \times \square = 48$$

How many ways can you make this true without using a 1 digit?
Digits can be used more than once.

$$\square \times \square = 48$$

$$48 = \square \times \square$$

$$\square \times \square = 48$$

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Year 5 Autumn Term 2 revisit – from Learning Sequence 5LS10

Two people have worked out the calculation $35,607 - 7,698$. Can you work out if they are right and any mistakes they might have made to arrive at their answers?

I have used the column method and got the answer 32,091.

I have used the column method too, but I got the answer 27,819.

CHALLENGE: Change just two digits within 35,607 to make the calculation much simpler. Explain your choices.

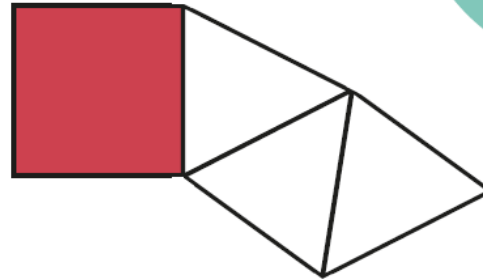


Year 6 Autumn Term 2 revisit – from Learning Sequence 6LS15

Is anyone right? What do you know about nets of pyramids?

Two children are thinking about nets. They are trying to work out what shape this net might make.

The net would make a pyramid, because it has triangles in it, which would fold up to make the point.



I don't think it can make a pyramid because it has a square in it and there are no square faces on a pyramid.



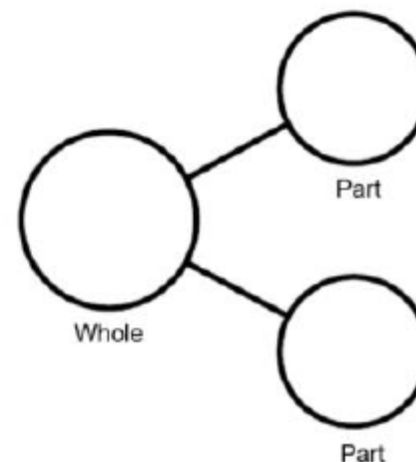
CHALLENGE:
How many different nets can you draw for a square based pyramid?



Year 1 Spring Term 1 revisit – from Learning Sequence 1LS20



Using these numbers, how many part whole cherry models can be made?



CHALLENGE:
These digit cards can be used more than once to create two-digit numbers such as 11.

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Year 2 Spring Term 1 revisit – from Learning Sequence 2LS20



CHALLENGE:
Can you draw similar
bar models to show
1 hour?

Which bar models are correct?

Can you draw any more bar models to show 1
minute?



Year 3 Spring Term 1 revisit - from Learning Sequence 3LS18

Explain how regrouping could be used to help.

CHALLENGE:
Explain how knowing
 $12 \times 8 = 96$ could be
used to help.



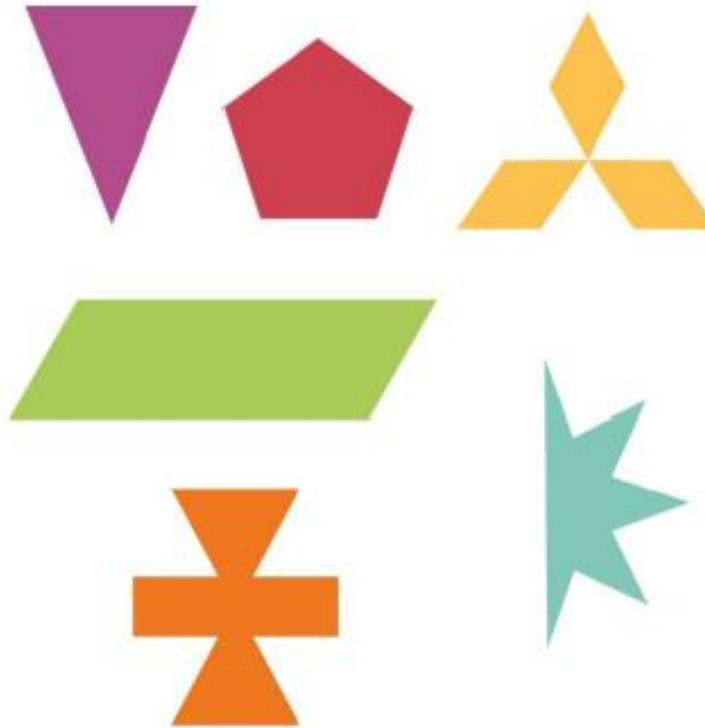
$12 \times 7 = \square$
Help! I don't know my 12 or
7 times tables!

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Year 4 Spring Term 1 revisit – from Learning Sequence 4LS15

Which of these shapes have one or more lines of symmetry?

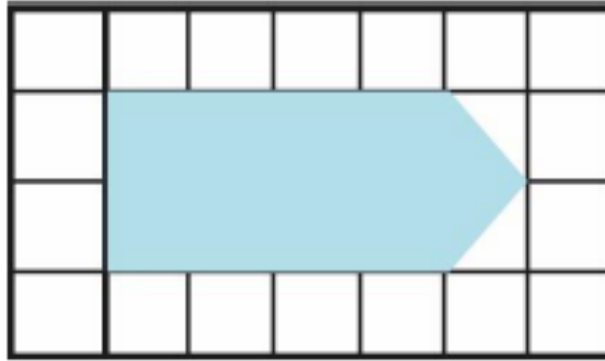


CHALLENGE:
Explain 'which one doesn't belong'.
For example: 'the pentagon is the one that doesn't belong as it is the only regular shape' or 'the parallelogram is the only quadrilateral'.



Year 5 Spring Term 1 revisit – from Learning Sequence 5LS20

CHALLENGE:
Which other shapes are possible to draw with the same area?



This shape has been drawn on cm^2 paper.

Draw a rectangle with the same area.

Is it possible to draw more than one? Prove it.

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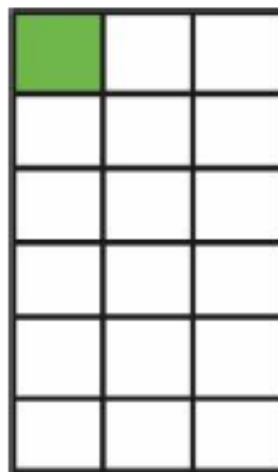


Year 6 Spring Term 1 revisit – from Learning Sequence 6LS21

The shaded square represents an answer to a multiplying fractions question.

CHALLENGE:
Draw your model of
representing

$$\frac{1}{3} \times \frac{3}{4}$$

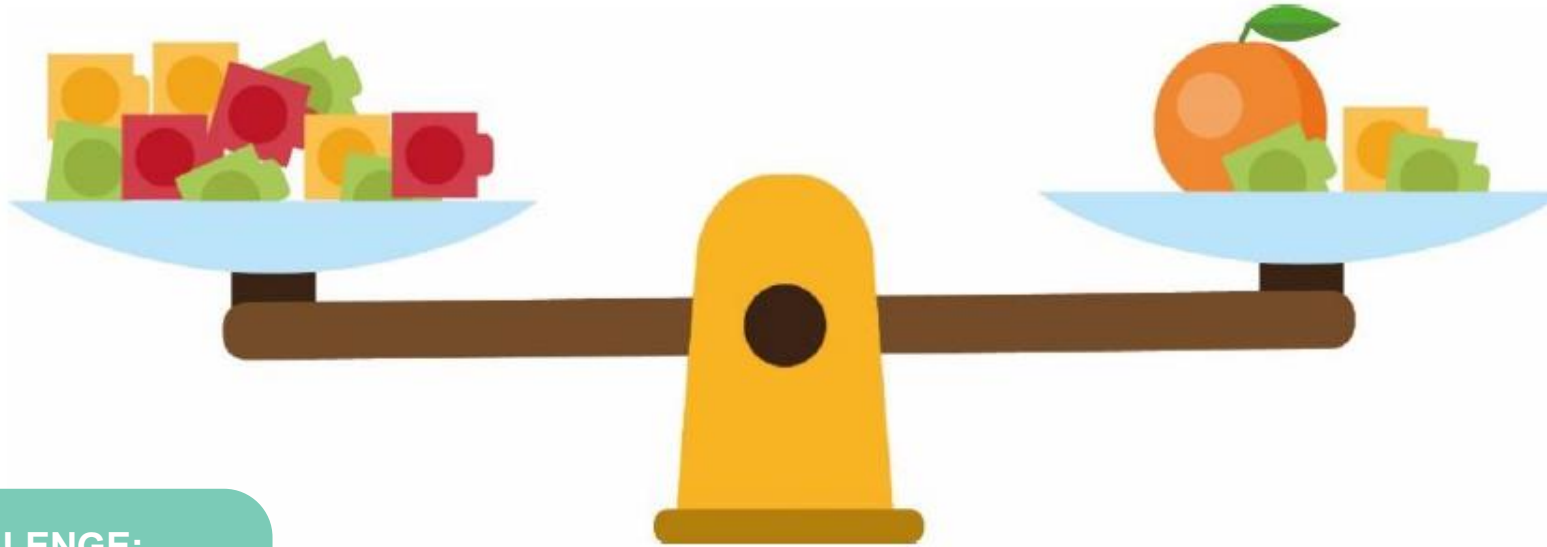


What could the question be?



Year 1 Spring Term 2 revisit – from Learning Sequence 1LS25

Activities for exploring ideas at greater depth



CHALLENGE:
Draw your own problem
for someone else and
record the calculation
needed to solve it.

How many cubes does the orange weigh?

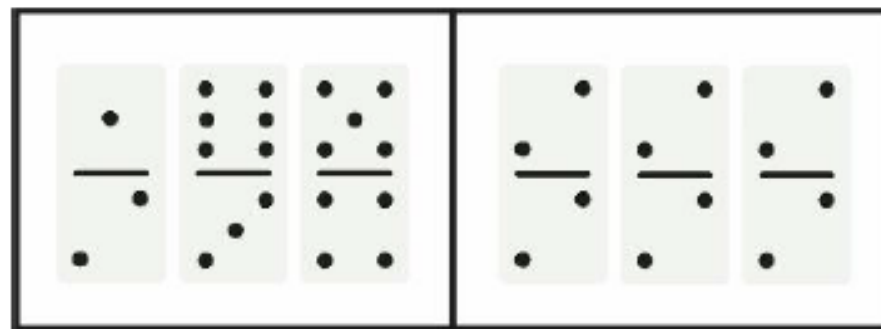


Year 2 Spring Term 2 revisit – from Learning Sequence 2LS25

The total number of dots on one set of dominoes could be found using multiplication.

Which set? Explain your choice.

CHALLENGE:
Can you draw an array to show how multiplication could be used to find the total number of dots?



Set A

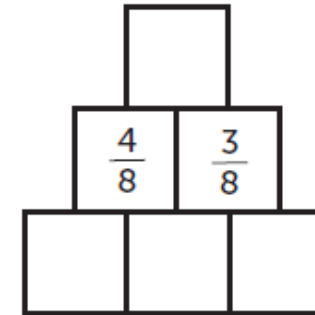
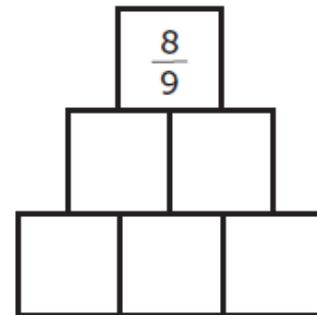
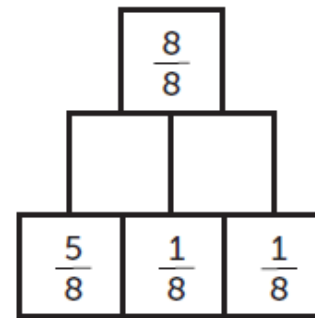
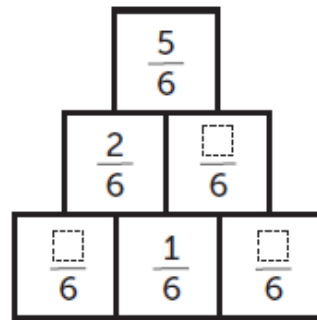
Set B

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Year 3 Spring Term 2 revisit – from Learning Sequence 3LS23

Use your addition and subtraction skills to complete the missing fractions.
Each block is the total of the pair of blocks below.














CHALLENGE:

Explain why some of these block towers have multiple solutions and why some only have one solution.



Year 4 Spring Term 2 revisit – from Learning Sequence 4LS22

Order these amounts from smallest to the largest

 $\frac{3}{4}$ of 1kg	 0.8kg	 $\frac{2}{3}$ of 36cm	 $\frac{2}{3}$ of 1 hour	 $\frac{1}{4}$ of 2 hours
 700g	 $\frac{1}{4}$ of 2kg	 $\frac{3}{5}$ of 25cm	 0.75 of 1 hour	 50 minutes
		 0.25m		

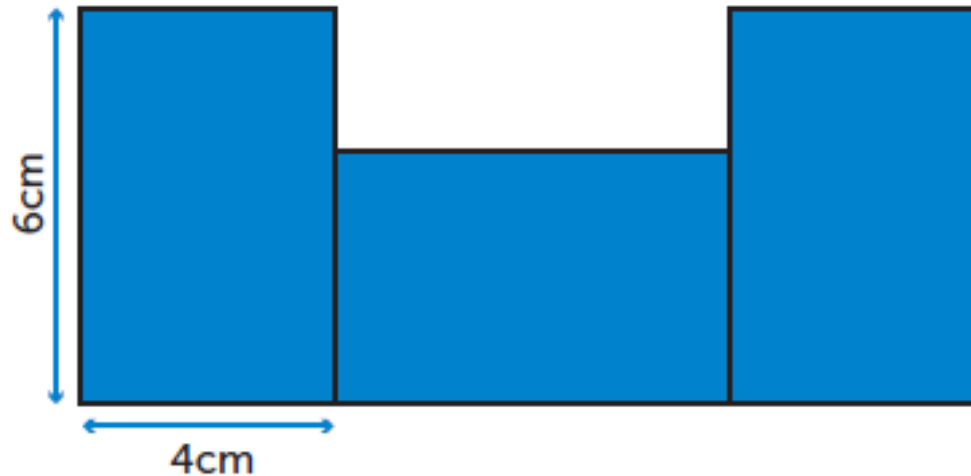
CHALLENGE:
Select a set and add your own item so that it would appear second when ordered from smallest to largest.



Year 5 Spring Term 2 revisit – from Learning Sequence 5LS26

CHALLENGE:
Using these three rectangles to make another composite shape, what is the smallest and what is the largest perimeter possible?

This composite shape is made up of three identical rectangles, each 6cm by 4cm. What is the perimeter?

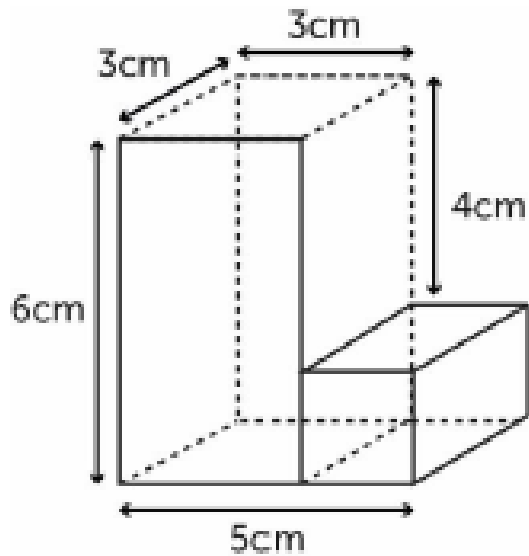


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Year 6 Spring Term 2 revisit – from Learning Sequence 6LS25

Activities for exploring ideas at greater depth



Calculate the combined volume of the two cuboids.

Is there more than one way to do it?

Can you find an object or objects around you to approximately total the same volume?

CHALLENGE:
Draw two different cuboids that would have the same volume but different dimensions.

