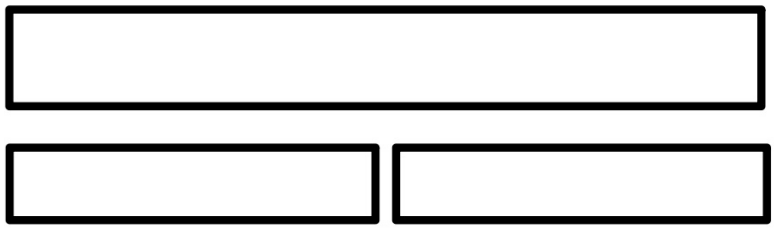
18/6/21

Today's lesson is looking at scaling problems. You will find using the bar model useful today.



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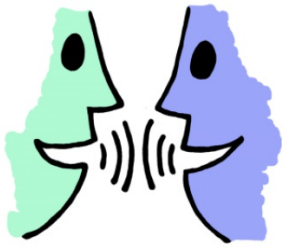
Curriculum prioritisation: Multiplication and division.

Apply known multiplication and division facts to solve contextual problems with different structures.	

What times tables do you feel confident in using?

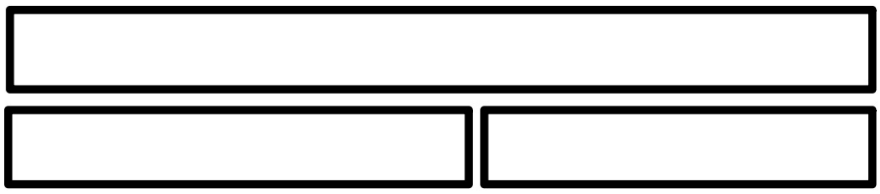


Watch this video on The White Rose Hub to help you solve scaling problems.

When they ask you to complete questions on the worksheet, ignore it. We will be doing something different at the end.

Let's have a go at some of our own...

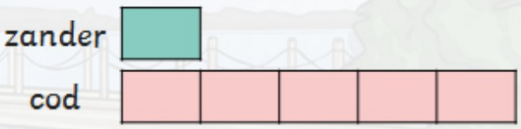
Remember the bar model could help you solve these.



How would you solve this?

Abdullah draws a bar model to compare the masses of two different types of fish.

Complete the missing information:



The mass of the cod is ☐ times the mass of the zander.

The zander's mass is 11kg.

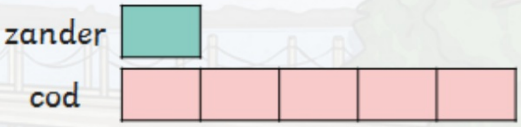
☐ × ☐ = ☐

The mass of the cod is ▭.

This is how I would work it out.

Abdullah draws a bar model to compare the masses of two different types of fish.

Complete the missing information:



The mass of the cod is 5 times the mass of the zander.

The zander's mass is 11kg.

11 × 5 = 55

The mass of the cod is 55kg .

Your turn to have a go on your own...

1) Kiran draws a bar model to compare the lengths of two different animals' tails.

harvest mouse 

rat 

Complete the missing information:

The rat's tail is _____ times longer than the tail of the harvest mouse.

The harvest mouse's tail is 6cm long.

_____ × _____ = _____

The rat's tail is _____ long.

$1 \times 3 = 3$
$2 \times 3 = 6$
$3 \times 3 = 9$
$4 \times 3 = 12$
$5 \times 3 = 15$
$6 \times 3 = 18$
$7 \times 3 = 21$
$8 \times 3 = 24$
$9 \times 3 = 27$
$10 \times 3 = 30$
$11 \times 3 = 33$
$12 \times 3 = 36$

Did you get it right?

1) The rat's tail is ***three*** times longer than the tail of the harvest mouse.

The harvest mouse's tail is 6cm long.

6 × 3 = 18

The rat's tail is ***18cm*** long.

Your turn to have a go on your own...

5 x 1	=	5
5 x 2	=	10
5 x 3	=	15
5 x 4	=	20
5 x 5	=	25
5 x 6	=	30
5 x 7	=	35
5 x 8	=	40
5 x 9	=	45
5 x 10	=	50
5 x 11	=	55
5 x 12	=	60

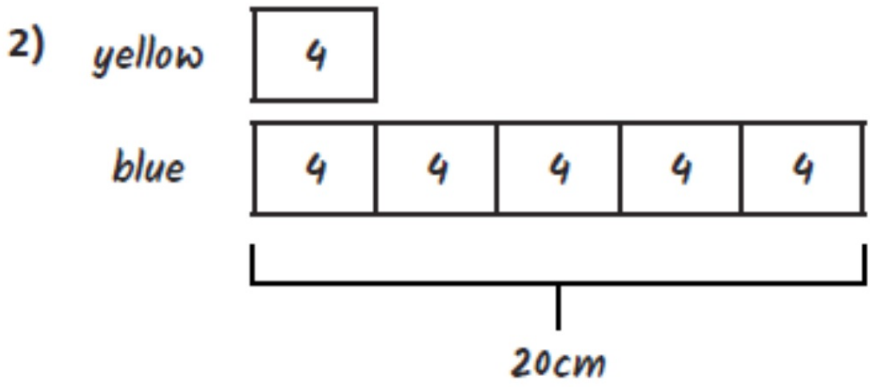
2) A yellow butterfly's wingspan is 4cm. A blue butterfly's wingspan is 5 times as big.

Draw a bar model to represent both wingspans.

Write a calculation to find the wingspan of the blue butterfly.

Did you get it right?

2)

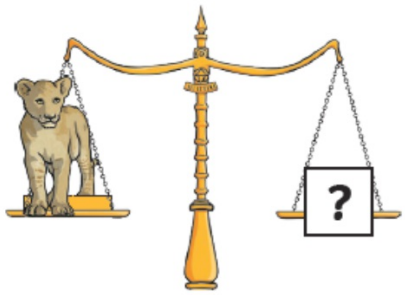


Wingspan of the blue butterfly: **5 × 4cm = 20cm**

Your turn to have a go on your own...

3) Kat measured the mass of a lion cub.

Two months later, the lion cub weighed 8 times as much.



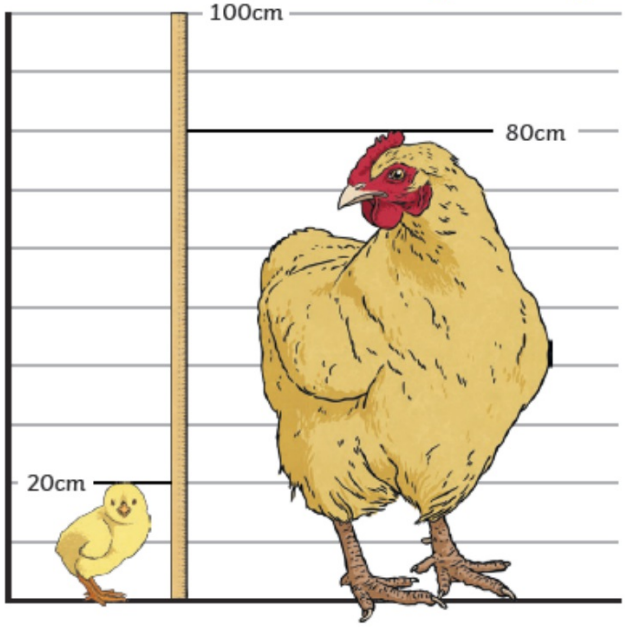
How many kilogram weights would Kat need to balance the mass of the tiger cub now?

8 x 1	=	8
8 x 2	=	16
8 x 3	=	24
8 x 4	=	32
8 x 5	=	40
8 x 6	=	48
8 x 7	=	56
8 x 8	=	64
8 x 9	=	72
8 x 10	=	80
8 x 11	=	88
8 x 12	=	96

Did you get it right?

2KG x 8= 16KG

Your turn to have a go on your own...



Michele says, "The adult chicken is 3 times as tall as the chick because you need 3 more lots of 20cm to make 80cm."

Do you agree with Michele? Explain your reasons.

20

40

60

80

100

Did you get it right?

Michele is wrong – the adult is four times as tall as the baby. She has forgotten to include the baby's original height in her calculation. Three more lots of 20 means there are four lots altogether. If the adult were three times as tall as the baby, it would be 60cm tall.

20	20
40	40
60	60
	80