

LO: To be able to solve scaling problems.

WARM UP!

Write the missing digits to make the sums correct.

$$\begin{array}{r} \square \ 5 \ 6 \\ + \ 2 \ 3 \ \square \\ \hline 6 \ 9 \ 4 \end{array}$$

$$\begin{array}{r} 6 \ \square \ \square \\ + \ 3 \ 5 \ 7 \\ \hline 0 \ 3 \ 8 \end{array}$$

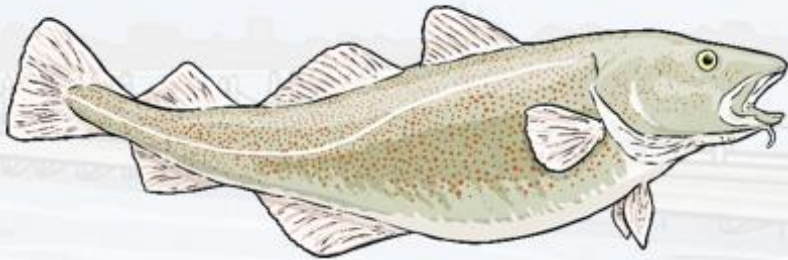
$$\begin{array}{r} 2 \ 3 \ \square \\ - \ 1 \ \square \ 5 \\ \hline \quad 9 \ 4 \end{array}$$

$$\begin{array}{r} 5 \ 7 \ 4 \\ - \ 3 \ \square \ \square \\ \hline 2 \ 0 \ 7 \end{array}$$

Today we are going to look at scaling problems. Look at the example below.

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

Complete the missing information:



zander



cod



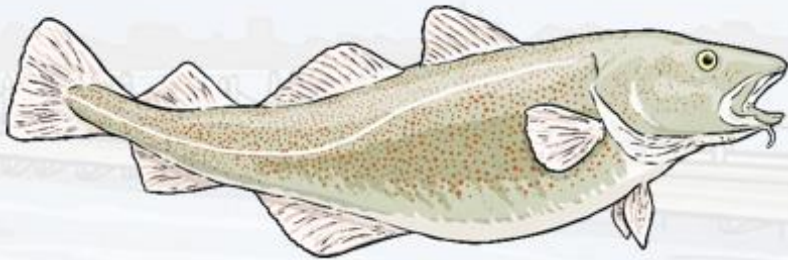
As you can see, the mass of the cod is 5 times the mass of the zander.
If the zander's mass is 11kg.
What is the mass of the cod?

How would you work it out?

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Complete the missing information:



zander



cod



As you can see, the mass of the cod is 5 times the mass of the zander.
If the zander's mass is 11kg.
What is the mass of the cod?

$$\boxed{11} \times \boxed{5} = \boxed{55}$$

Were you correct?

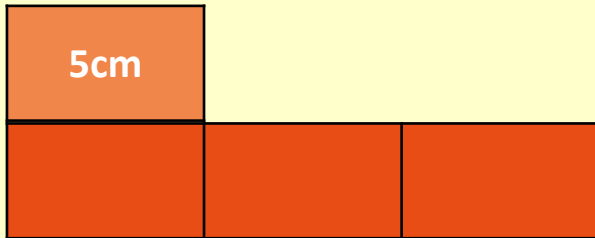
Now try this one...

An orange caterpillar is 5cm long. A brown caterpillar is 3 times as long.

Write a calculation to find the length of the brown caterpillar.

orange

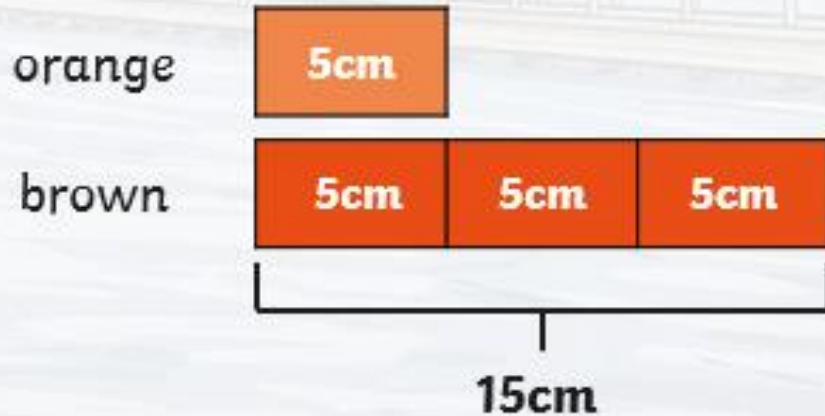
brown



Now try this one...

An orange caterpillar is 5cm long. A brown caterpillar is 3 times as long.

Write a calculation to find the length of the brown caterpillar.



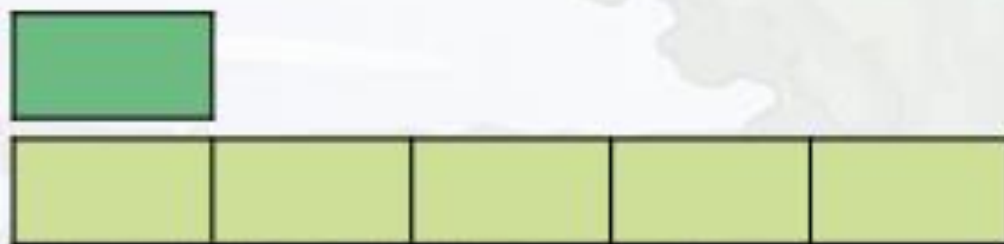
$$5\text{cm} \times 3 = 15\text{cm}$$

Were you correct?



Match each bar model to the facts it represents.

Leg length: 5cm
Leg length: 15cm



Mass: 20kg
Mass: 100kg



Height: 1m
Height: 4m



Match each bar model to the facts it represents.

Leg length: 5cm
Leg length: 15cm

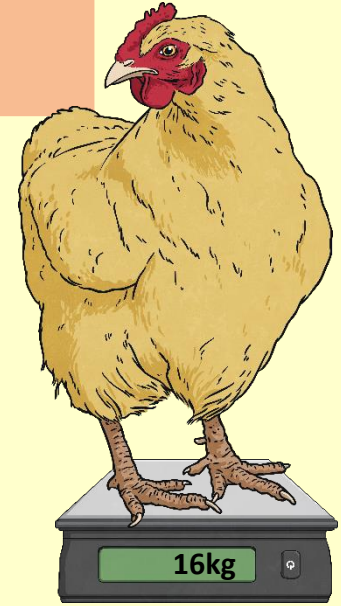
Mass: 20kg
Mass: 100kg

Height: 1m
Height: 4m



Do you agree with Jacob? Explain your reasons.

The adult chicken is 14 times heavier than the chick.



Do you agree with Jacob? Explain your reasons.

The adult chicken is 14 times heavier than the chick.



Jacob is not correct. He has calculated the difference between the two masses – he should have worked out how many times heavier the adult chicken is.
 $2 \times 8 = 16$, so the adult is eight times heavier than the chick.

Brilliant! You can now start your worksheet.