Show your working out for each of the questions. Remember, bar models are helpful when solving scaling problems.

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. |

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

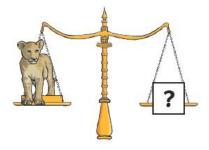
Draw a bar model to represent both wingspans.

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

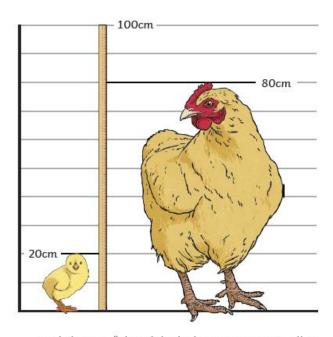
3) Kat measured the mass of a lion cub.



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?



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.