

Imperial units of length

Discover

The bird that swallowed my wedding ring was about 3 feet tall.

Conversion chart
12 inches = 1 foot
1 inch is approx. 2.5 cm

WANTED



24 inches

48 inches

36 inches

30 inches

- Which bird swallowed the ring?
- How tall is the ostrich in metric units?

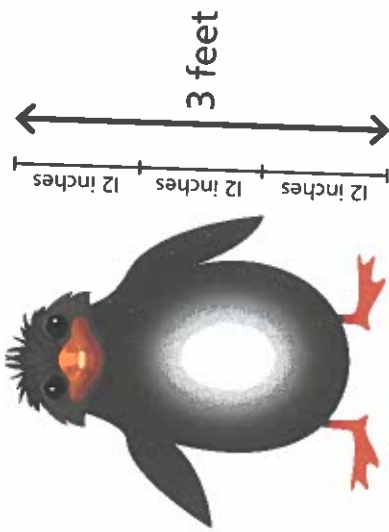
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a) **Inches** and **feet** are **imperial units** of length. 12 inches (in) = 1 foot (ft)

Imperial units were used in the UK until the metric system was introduced in 1965. The metric system made things easier as it deals with 10s, 100s and 1,000s. Imperial units are still sometimes used.

1 foot	1 foot	1 foot
12 inches	12 inches	12 inches

3 feet



$$12 \times 3 = 36$$

$$3 \text{ feet} = 36 \text{ inches}$$

The penguin swallowed the ring.

b) 1 inch is approximately 2.5 cm. The ostrich is 48 inches tall.

$$48 \times 2.5$$

48	48	24
48	48	24

$$48 \times 2$$

$$48 \times 0.5$$

I know that 48×0.5 means 48 lots of $\frac{1}{2}$. This is the same as finding half of 48.

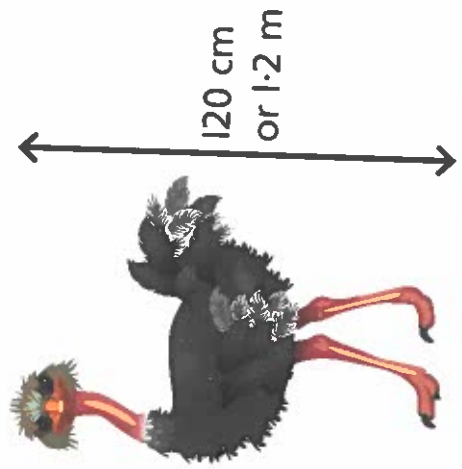
$$48 \times 2 = 96$$

$$48 \times 0.5 = 24$$

$$96 + 24 = 120 \text{ cm}$$

$$120 \div 100 = 1.2 \text{ m}$$

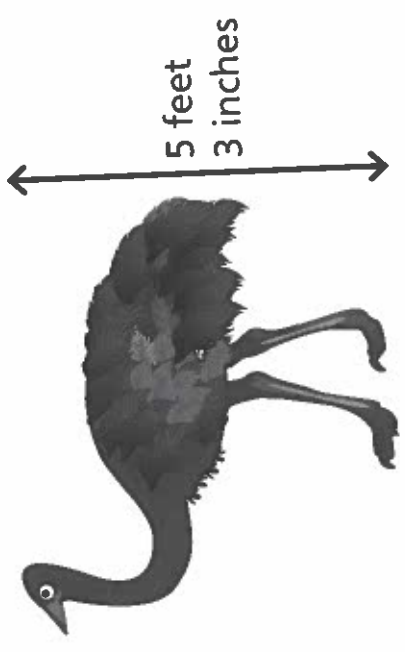
The ostrich is 120 cm tall, which is the same as 1.2 m.



Think together

1 This emu is 5 feet and 3 inches tall.
How tall is it in inches?

1 foot (ft) = 12 inches (in)



5 feet 3 inches				
1 foot	1 foot	1 foot	1 foot	3 in
12 inches	12 inches	12 inches	12 inches	3 in
5 x 12				3

$5 \times 12 = \square + 3 = \square$
So, 5 feet 3 inches = $\square$ inches. The emu is $\square$ inches tall.

2 The duck's pond is 15 yards wide.
How wide is it in inches?

$15 \times \square = \square$
So, 15 yards = $\square$ feet
 $\square \times \square = \square$
So, 15 yards = $\square$ inches
The pond is $\square$ inches wide.

15 yds				
1 yd	1 yd	1 yd	1 yd	1 yd
3 ft	3 ft	3 ft	3 ft	3 ft
12 in	12 in	12 in	12 in	12 in



I am going to multiply twice to find the answer: once to convert into feet and once to convert into inches.

CHALLENGE

3 Convert each of these imperial units into metric units.
Choose a range of metric units to convert to. For example, you could convert 1 inch into millimetres, 1 foot into centimetres and 1 yard into metres.

1 inch 1 foot 1 yard

Explain how you can work out the answer.
Use these conversion facts to help.

1 inch is about the same as 2.5 cm.

12 inches = 1 foot 10 mm = 1 cm

3 feet = 1 yard 100 cm = 1 m 1,000 m = 1 km

I wonder if I will need to convert all the measurements into inches first.

I am going to use the fact that 1 inch is about the same as $2\frac{1}{2}$ cm to help me.

