

Week 5: Square Roots

What does it mean?

A square root is a value that can be multiplied by itself to give a square number. It's just like a square number but the opposite way around. When we ask what the square root is, we are simply asking – what number multiplied by itself, gives this answer?

For example:

$4 \times 4 = 16$. Therefore, 16 is a square number.

So, when a question asks what the square root of 16 is, the answer is 4.

What is the square root of 64? (What number, multiplied by itself, gives the answer 64?)

$8 \times 8 = 64$

So, the square root of 64 is 8.



Need more guidance? <https://corbettmaths.com/2012/08/11/1338/>

Task



Identify the square roots. The first one has been done for you.

a) 81 9

g) 16 4

b) 4 2

h) 256 16

c) 169 13

i) 121 11

d) 49 7

j) 576 24

e) 529 23

k) 25 5

f) 144 12

l) 100 10

Problem Solving

Question 1: Harriet thinks of a number.
She squares it and then adds 11.
Harriet's answer is 36.
What was her original number?

5

Question 2: A square has an area of 225cm^2 .
Work out the perimeter of the square.

60cm

Question 3: Place each of the digits in the correct position to make the correct calculation.



$$\sqrt{\boxed{8}\boxed{4}\boxed{1}} = \boxed{2}\boxed{9}$$

Question 4: Can you spot any mistakes?

Write down the value of

(a) $\sqrt{16}$

(b) $\sqrt{100}$

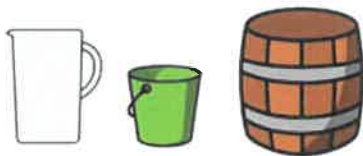
$$\begin{array}{r} 8 \\ \hline (1) \end{array}$$

$$\begin{array}{r} 50 \\ \hline (1) \end{array}$$

The numbers have been halved instead of square rooted
answers should be 4 and 10

Weekly Challenge

Here are 3 containers.



- The jug can hold **1500 ml**.
- The bucket can hold **2 litres**.
- The barrel can hold **15 litres**.

Aniso wants to fill the barrel with water.

Find 2 ways that Aniso can fill the barrel using the jug and bucket.

Put your answers here



Now complete the online quiz:

<https://forms.office.com/r/bADnL7wedW>