

# QT Square root word problems

1. John bought a bag of lawn seed that will cover 400 square metres. What are the dimensions of the largest square plot of lawn that the seed will cover?

2. The area  $A$  of a circle in  $\text{cm}^2$ , with a radius  $r$ , is given by the formula

$$A = 3.14r^2$$

What is the approximate area of a circle with a radius of 30 cm?

3. The time  $t$  in seconds for an object dropped from a height of  $h$  feet to hit the ground is given by the formula

$$t = \frac{\sqrt{2h}}{32}$$

How long will it take an object dropped from a height of 500 feet to hit the ground? Round to the nearest tenth.

4. A cardboard envelope for a compact disc is a square with an area of  $171.61 \text{ cm}^2$ . What are the dimensions of the envelope?

5. Refer to the squares. They represent the approximate areas of Northern Ireland, Scotland, and the United Kingdom. Find the area of Northern Ireland.



6. Use the figure in Q5. How much larger is the UK than Scotland?