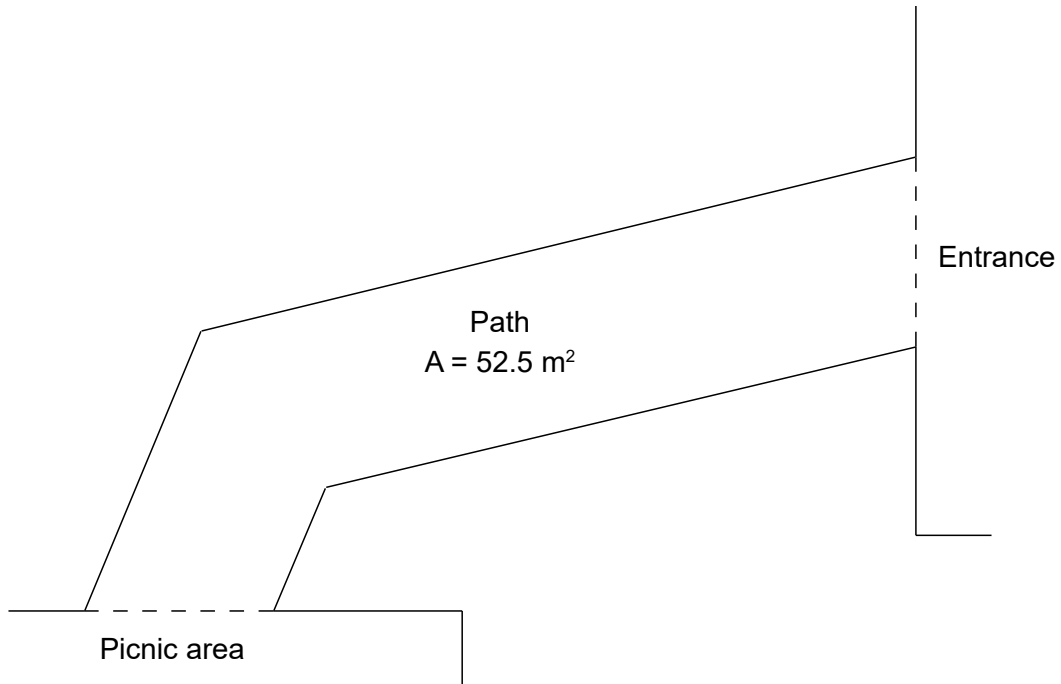


Numeracy in Construction

Calculating Volume

Pouring Concrete

In a public park, there is a path that runs from the entrance to a picnic area as shown below.



The path was constructed ten years ago using timber decking, but its condition has deteriorated with the weathering of the timber. The council has decided to replace the decking with concrete poured to a depth of 15 cm.

The concreter is given a copy of the original plans for the timber path, which shows technical specifications such as the quantity of timber used in the construction. The timber covered an area of 52.5 m^2 . When the concrete is poured, it will cover an identical area to the existing path.

1. The equation to calculate volume is $V = L \times W \times D$. However, using the information above the concreter is able to calculate the volume of concrete required for the job. In your own words, explain how this calculation is possible.

2. Calculate the volume of concrete needed for the job. Show your working and give your answer in m^3 .