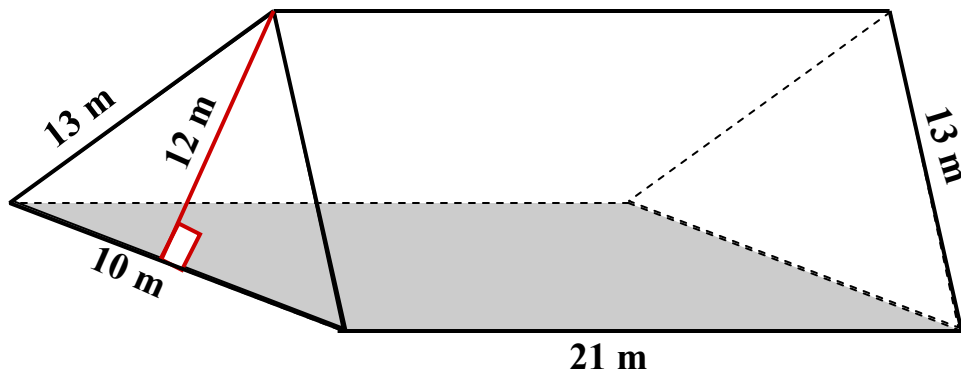# How to find the volume of a triangular prism

Problem: Find the volume of the above triangular prism. All measurements have been labelled.

Solution: To find the volume of the given triangular prism, start at the perpendicular height of the prism which is marked in red and is shown by the square edge. Once you tracked the square edge (right angle), mark both of the edges making right angle. In this picture, perpendicular is the 12m long and it is falling on the base of 10 m long.

Once you got the perpendicular and base, the next length is the distance between two bases (which means bases of two triangular faces), this length is 21m.

Hint: Never include the slant height (13m in this example) to find the volume of a triangular prism. We use the slant height to find surface area or some times to find perpendicular height using Pythagorean theorem.

Once you find base, perpendicular height and distance between bases, then use the following formula to find the volume of the prism:

$$V = \frac{Base \times Height \times length}{2}$$

$$V = \frac{10 \times 12 \times 21}{2}$$

Because the base = 10 m

Perpendicular height = 12 m and

The length of prism = 21 m

$$V = \frac{2520}{2}$$

$$V = 1260 \ m^3$$

Remember to represent the volume in cubic units and our answer is 1260 cubic meters.