Guide to:
Volume of a prism

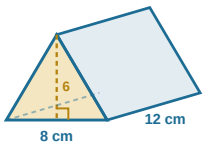
maths Links

Explanation:

A **prism** is a 3D shape that has the exact same 2D shape (the **cross-section**) running all the way through its length. For any prism: **Volume of Prism = Area of Cross-Section × Length**.

Always calculate the **area of the front cross-section** first (whether it is a triangle, a trapezium, or a compound L-shape), and then multiply that area by the depth/length of the prism.

Example 1: A triangular prism has base **8 cm**, perpendicular height **6 cm**, and length **12 cm**. Find its volume.

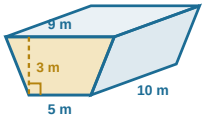


Area = $\frac{1}{2}$×8×6 = **24 cm²**

V = 24 × 12

= **288 cm³**

Example 2: A prism has a trapezium cross-section with parallel sides **5 m** and **9 m**, height **3 m**, and length **10 m**. Find its volume.



Area = $\frac{5+9}{2}$×3 = **21 m²**

V = 21 × 10

= **210 m³**

Worksheets and other links					
Video Lesson on this topic	Video		**Naiker Maths**	Qs	Ans
Ken Stafford (Past Paper Qs)	Qs	Ans	**Dr Austin Maths**	Qs	Ans
Maths Genie	Qs	Ans	**Maths Made Easy**	Qs	Ans
Corbettmaths (Practice)	Qs	Ans	**Maths4Everyone**	Qs	Ans
Corbettmaths (Textbook)	Qs	Ans	**E Classroom**	Qs	Ans
1st Class Maths	Qs	Ans	**PMT (Edexcel)**	Qs	Ans

Questions by topic | **Past Papers** | **Maths worksheets**

Buy workbook | **Quizzes** | **More resources like this**

ken@mathslinks.co.uk