**Volume and Surface Area (H)**

Pre-Intervention Assessment

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Question** | **Objective** | **RAG** |
|  1 | Calculate volume and surface area of prisms, including cylinders |  |
|  2 | Calculate volume and surface area of cones and spheres |  |
|  3 | Solve problems involving volume and algebra |   |

**1.** Here is a solid prism.



Work out the volume of the prism.
You must show all your working.

**2.** Diagram **NOT** accurately drawn

The radius of the base of a cone is 5.7 cm.
Its slant height is 12.6 cm.

Calculate the volume of the cone.
Give your answer correct to 3 significant figures.

........................................................... cm³

**3**. Here is a cuboid.



All measurements are in centimetres.
*x* is an integer.
The total volume of the cuboid is less than 900 cm3

Show that *x* 5.

[Glue here]