Guide to: Surface area

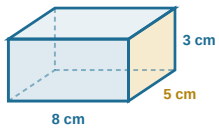
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Explanation:

The **total surface area** of a 3D solid is the sum of the areas of **all its outer faces**, measured in square units (**cm²** or **m²**). A **cuboid** has 6 rectangular faces in 3 identical opposite pairs: **Surface Area = 2(*lw* + *lh* + *wh*)**.

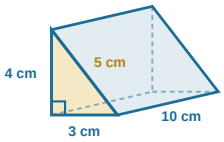
For a **triangular prism**, add the areas of the **2 triangular ends** ($\frac{1}{2}$ × base × height each) and the **3 rectangular sides**. Be careful not to confuse the slant edge of the triangle with its perpendicular height!

Example 1: Find the total surface area of a cuboid measuring **8 cm by 5 cm by 3 cm**.



2(8×5) = **80**
2(8×3) = **48**
2(5×3) = **30**
Total = **158 cm²**

Example 2: A right-angled triangular prism has ends **3 cm, 4 cm, 5 cm** and length **10 cm**. Find its total surface area.



2 ends = 2($\frac{1}{2}$×3×4) = **12**
3 sides = 30+40+50 = **120**
Total = **132 cm²**

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