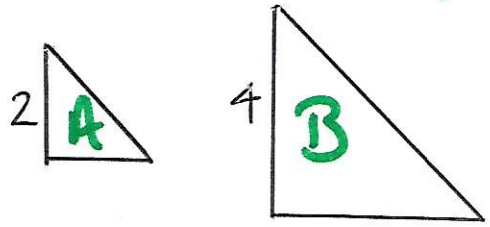
ENLARGEMENTS



Remember **SCALE FACTORS** for enlarging similar shapes is using ratios of side lengths

SF A → B = 4/2 = SF2

SF B → A = 2/4 = SF ½

This scale factor is known as the **LINEAR SCALE FACTOR** it is the scale factor for the lengths on the shapes

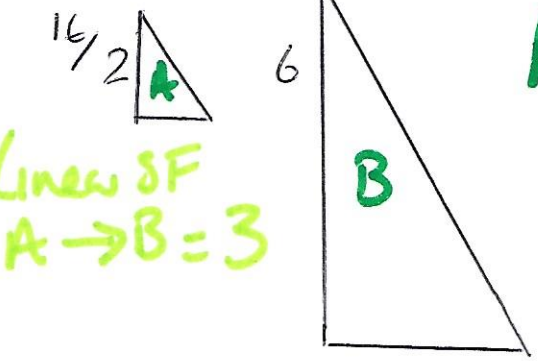
The **AREA** & **VOLUME** of similar shapes are also related by a scale factor

The **AREA** scale factor is the linear scale factor squared

$$\text{Area SF} = (\text{Linear SF})^2$$

The **VOLUME** scale factor is the linear scale factor cubed

$$\text{Volume SF} = (\text{Linear SF})^3$$

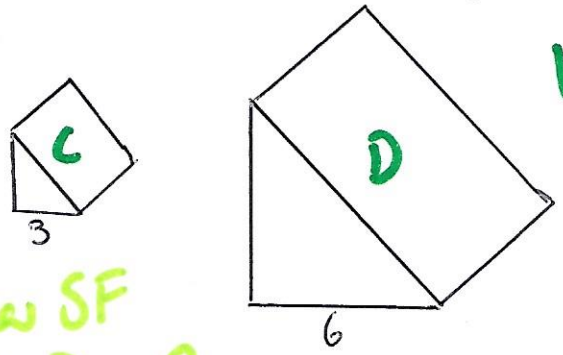


Linear SF A → B = 3

Area SF A → B = $(3)^2 = 9$

If area of A = $4cm^2$

area of B = 4 × area SF = $4 \times 9 = 36cm^2$



Linear SF C → D = 2

Volume SF C → D = $(2)^3 = 8$

If Volume of C = $10cm^3$

Volume of D = 10 × VSF =

$10 \times 8 = 80cm^3$