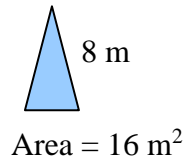
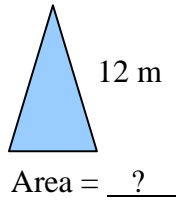


### Process at finding the Area Scale Factor

Evaluating the missing area from one of the similar figures.

Example:



**STEP 1: Identify the Side Length Scale Factor (SLSF)**

$$SLSF = \frac{\text{Length of side from shape with the missing area}}{\text{Length of side from other shape}}$$

$$SLSF = \frac{12}{8} = \frac{3}{2} \quad (\text{Reduce})$$

**STEP 2: Identify the Area Scale Factor (ASF)**

$$\text{Area Scale Factor} = (SLSF)^2 = \left(\frac{3}{2}\right)^2 = \frac{9}{4}$$

$$ASF = \frac{9}{4}$$

**STEP 3: Set-up a proportion to find the missing area and then solve (x = the missing area)**

$$\frac{x}{16} = \frac{9}{4}$$

$$4x = 144$$

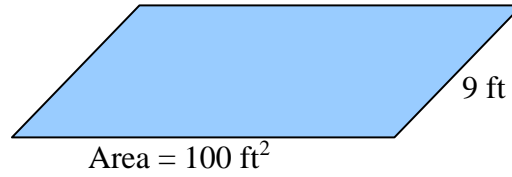
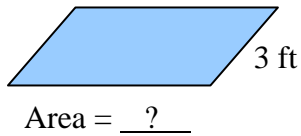
$$\frac{4x}{4} = \frac{144}{4}$$

$$x = 36 \text{ m}^2$$

So the missing area is **36 m<sup>2</sup>**

Evaluating the missing area from one of the similar figures.

Example:



**STEP 1: Identify the Side Length Scale Factor (SLSF)**

$$SLSF = \frac{\text{Length of side from shape with the missing area}}{\text{Length of side from other shape}}$$

$$SLSF = \frac{\quad}{\quad} = \frac{\quad}{\quad} \quad (\text{Reduce})$$

**STEP 2: Identify the Area Scale Factor (ASF)**

$$\text{Area Scale Factor} = (SLSF)^2 = \left(\frac{\quad}{\quad}\right)^2 = \frac{\quad}{\quad}$$

$$ASF = \frac{\quad}{\quad}$$

**STEP 3: Set-up a proportion to find the missing area and then solve (x = the missing area)**

$$\frac{x}{\quad} = \frac{\quad}{\quad}$$

So the missing area is