

## Section 7.2: Scale Diagrams and Reductions

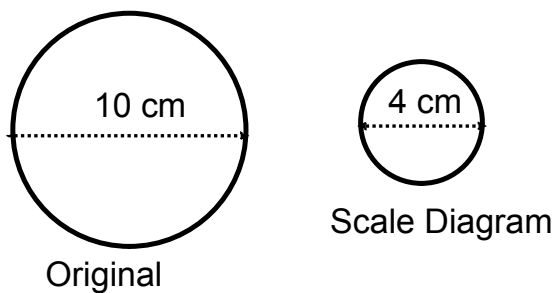
A scale diagram can be smaller than the original diagram.

This type of scale diagram is called a **reduction**.

A reduction has a scale factor that is less than 1.

### Example 1:

- What is the scale factor?
- Is this an enlargement or a reduction?



### Example 2:

A top view of a patio table is 105 cm by 165 cm. A reduction is to be drawn with scale factor of  $\frac{2}{5}$ . Determine the dimensions of the reduction.



**Proportion:**

- an equation such as  $\frac{3}{4} = \frac{6}{8}$ ,

which states that two ratios are equal.

Two diagrams are ***proportional*** if all sides are multiplied or divided by the same number.

**Example 3:**

Which diagram has sides that are **proportional** to the original?

