

Scale Drawings

7th Grade

Turning a real size into a drawing, and back again.

A scale is a ratio between drawing and reality. Everything follows from writing it down properly.

1 WRITE THE SCALE AS A RATIO

1 : 50 means 1 cm on paper is 50 cm in real life.

2 DECIDE THE DIRECTION

Drawing to real: multiply. Real to drawing: divide.

3 KEEP THE UNITS MATCHING

Convert before you calculate, not after.

4 CHECK IT IS SENSIBLE

A room 3 m wide should not come out as 300 m.

WORKED

Scale 1 : 50, drawing 6 cm $\rightarrow$ real 300 cm = 3 m

Real 4 m = 400 cm $\rightarrow$ drawing $400 \div 50 = 8$ cm

Area does not scale the same way. Double the lengths and the area goes up four times.