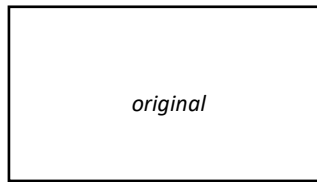


8.4 – Scale Factors and Areas of 2-D shapes

Explore

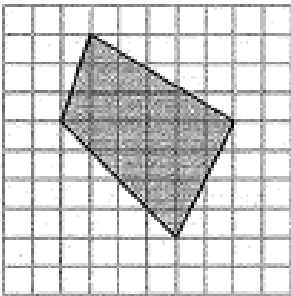


Scale factor = 2



Area of similar 2D shape =

Example 1: Determine the area of the quadrilateral, to the nearest tenth of a square unit after it is reduced by a scale factor of $\frac{1}{4}$.



Example 2: Determine the scale factor if the diagram of a metal disc has an area of 570 cm^2 when the actual disc has an area of 12 cm^2

Example 3: A computer screen measures 35 cm by 55 cm. An image of the computer projected onto a whiteboard with a screen area of 7328 cm^2 . Determine the length and width of the whiteboard.

Example 4: A grass field costs $\$0.60/\text{m}^2$ to maintain each month. A model shows a 1:1500 scale for the actual field. You budget $\$20\,000/\text{year}$ for maintenance. Can you afford the field?

