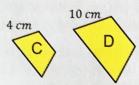
## **Similar Areas and Volumes**

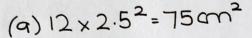


- (a) Find the linear scale factor.
- (b) Find the area scale factor.
- (c) The area of shape A is  $15 cm^2$ , find the area of shape B.
- (d) The area of shape B is  $360 cm^2$ , find the area of shape A.

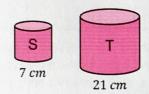
- (a) 4
- (b) 16
- (c) 240 cm²
- (d) 22.5cm²



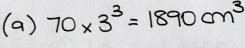
- (a) The area of shape C is  $12 cm^2$ , find the area of shape D.
- (b) The area of shape D is  $50 \ cm^2$ , find the area of shape C.



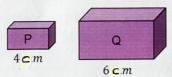
(b) 
$$50 \div 2.5^2 = 8 \text{ cm}^2$$



- (a) The volume of shape S is  $70 cm^3$ , find the volume of shape T.
- (b) The volume of shape T is  $810 \ cm^3$ , find the volume of shape S.



(b) 810 
$$\div 3^3 = 30 \text{ cm}^3$$



- (a) The volume of shape P is  $24 cm^3$ , find the volume of shape Q.
- (b) The volume of shape Q is  $270 cm^3$ , find the volume of shape P.
- (c) The surface area of shape P is 110 cm<sup>2</sup>, find the surface area of shape Q.
- (d) The surface area of shape Q is  $180 cm^2$ , find the surface area of shape P.

- (a)  $24 \times 1.5^3 = 81$ cm<sup>3</sup>
- (b)  $270 \div 1.5^3 = 80 \text{cm}^3$
- (c)  $110 \times 1.5^2 = 247.5 \text{cm}^2$
- (d) 180 1.52 = 80 cm2