

4 - 9

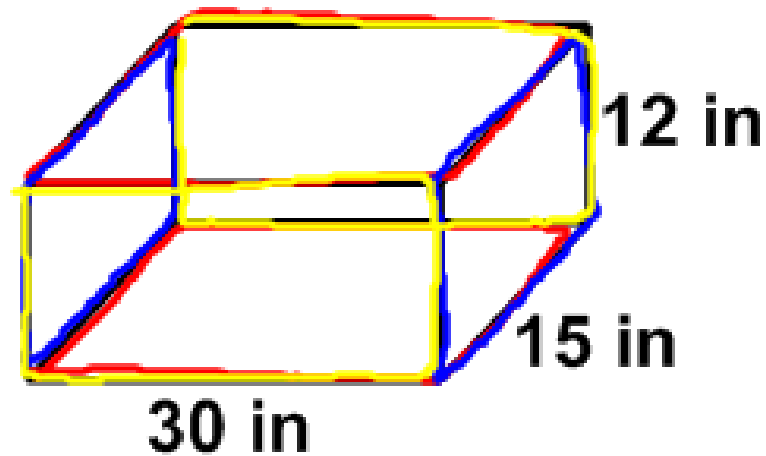
**Surface Area of
Prisms and Cylinders**

surface area: the amount of material
it takes to cover an object
(square units)

surface area of a prism

$SA = \text{sum of the area}$
 of all the faces

Ex:



$$30 \times 15 = 450$$

$$450$$

$$12 \times 15 = 180$$

$$180$$

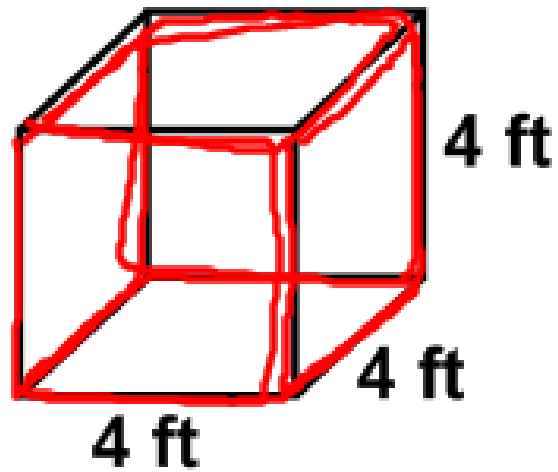
$$30 \times 12 = 360$$

$$360$$

+ them

1,980 in²

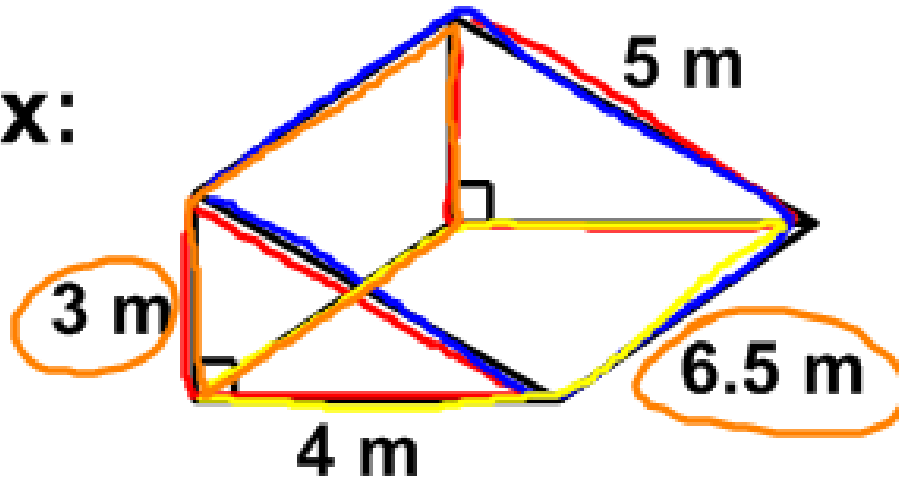
Ex:



$$4 \times 4 = 16$$

$$16 \times 6 = 96 \text{ ft}^2$$

Ex:



$$\frac{1}{2} \cdot 4 \cdot 3 = 6$$

6

$$5 \times 6.5 = 32.5$$

$$6.5 \times 4 = 26$$

$$6.5 \times 3 = 19.5$$

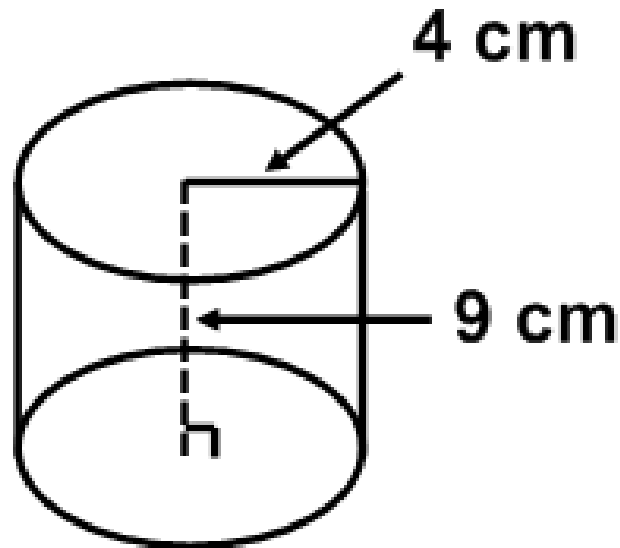
}

+ 90 m²

**surface area
of a cylinder**

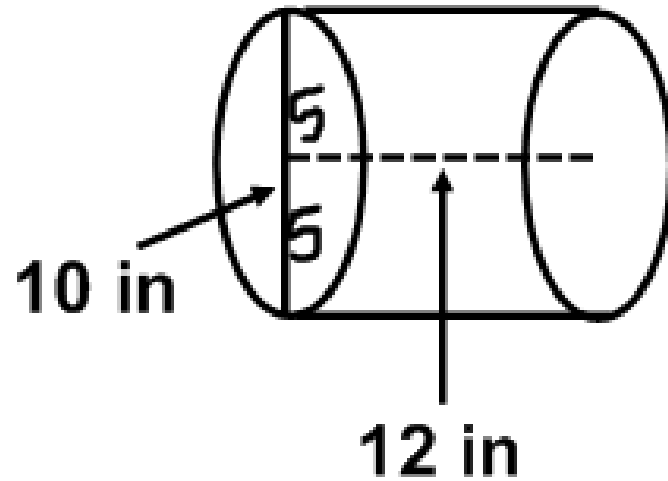
$$SA = 2\pi r^2 + 2\pi rh$$

Ex:



$$SA = 2 \cdot \pi \cdot 4^2 + 2 \cdot \pi \cdot 4 \cdot 9$$
$$= 326.7 \text{ cm}^2$$

Ex:



$$SA = 2 \cdot \pi \cdot 5^2 + 2 \cdot \pi \cdot 5 \cdot 12$$

$$= 534.1 \text{ in}^2$$



Homework:

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