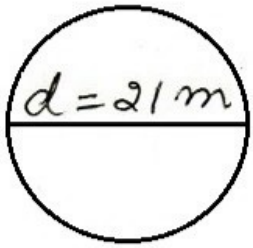
(4) length of rope required for 2 rounds = 2 · perimeter

$= 2\pi d$

$= 2 \times \frac{22}{7} \times 21^{3}$

$= 132 \text{ m}$



cost of rope $= 132 \times 4$

$= ₹ 528$

(5) area of remaining sheet

= outer area - inner area

$= \pi R^2 - \pi r^2$

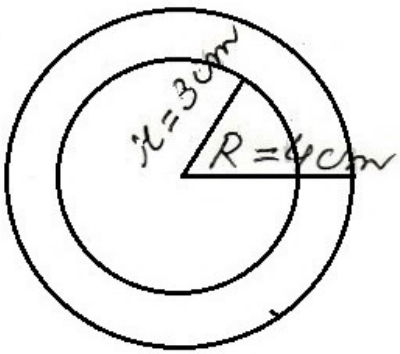
$= \pi (R^2 - r^2)$

$= 3.14 (4^2 - 3^2)$

$= 3.14 \times (16 - 9)$

$= 3.14 \times 7$

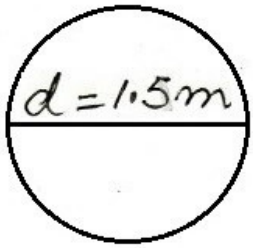
$= 21.98 \text{ cm}^2$



(6) length of lace required $= \pi d$

$= 3.14 \times 1.5$

$= 4.710 \text{ m}$



cost of lace $= 4.71 \times 15$

$= \text{Rs } 70.65$