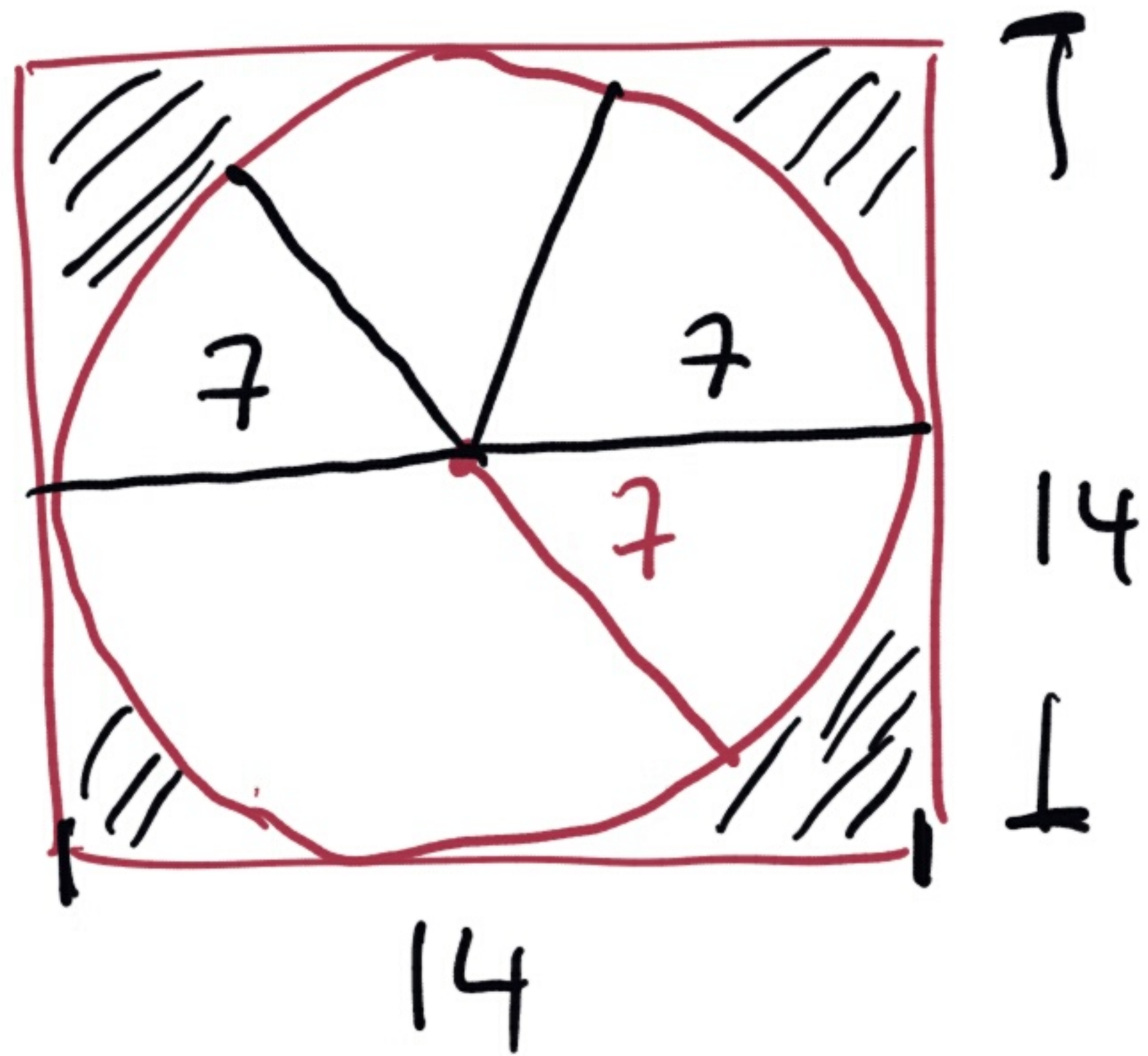


Pg 97 Q 18, 19

18



$$\pi = \frac{22}{7}$$

✓ Square.

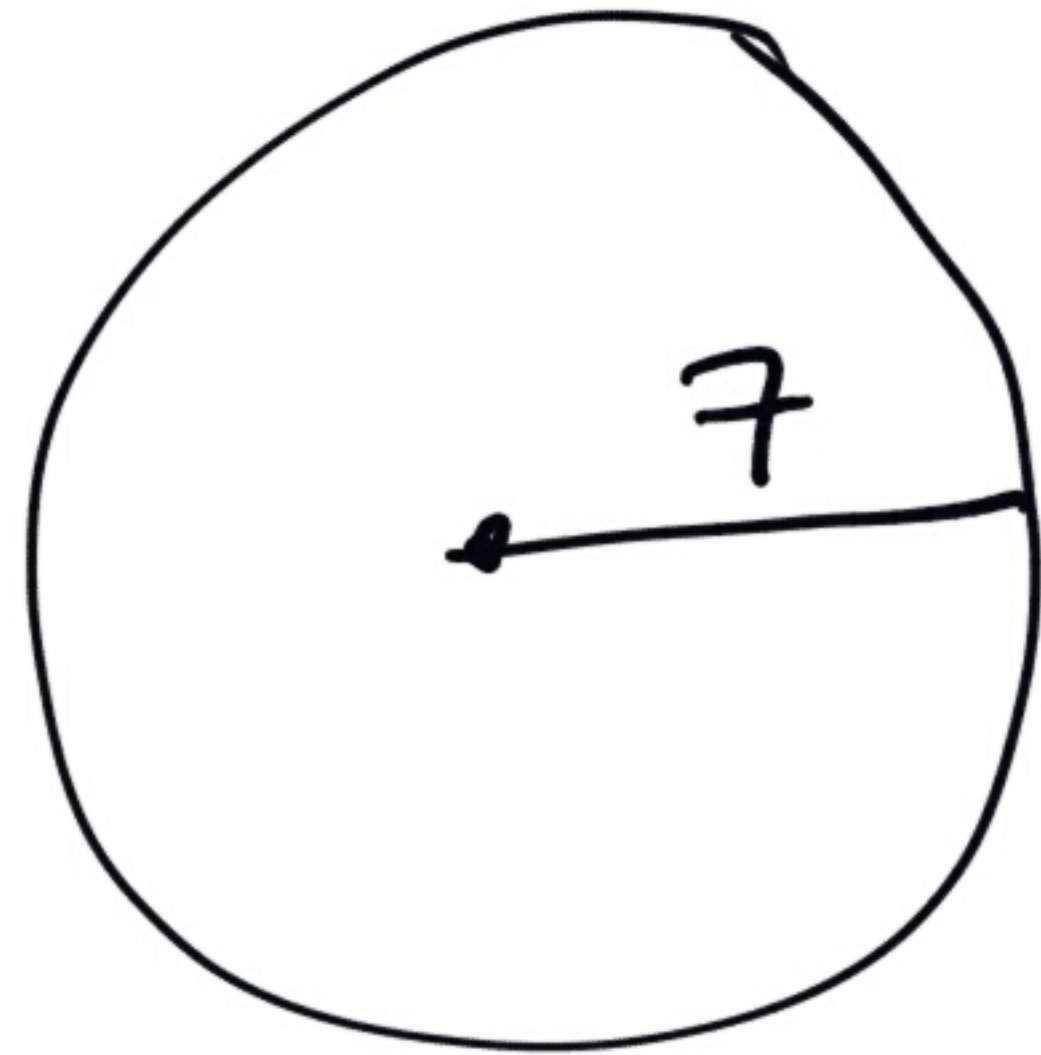


l 14

$$A = 14 \times 14$$

$$= \underline{196 \text{ cm}^2}$$

Circle



$$A = \pi r^2$$

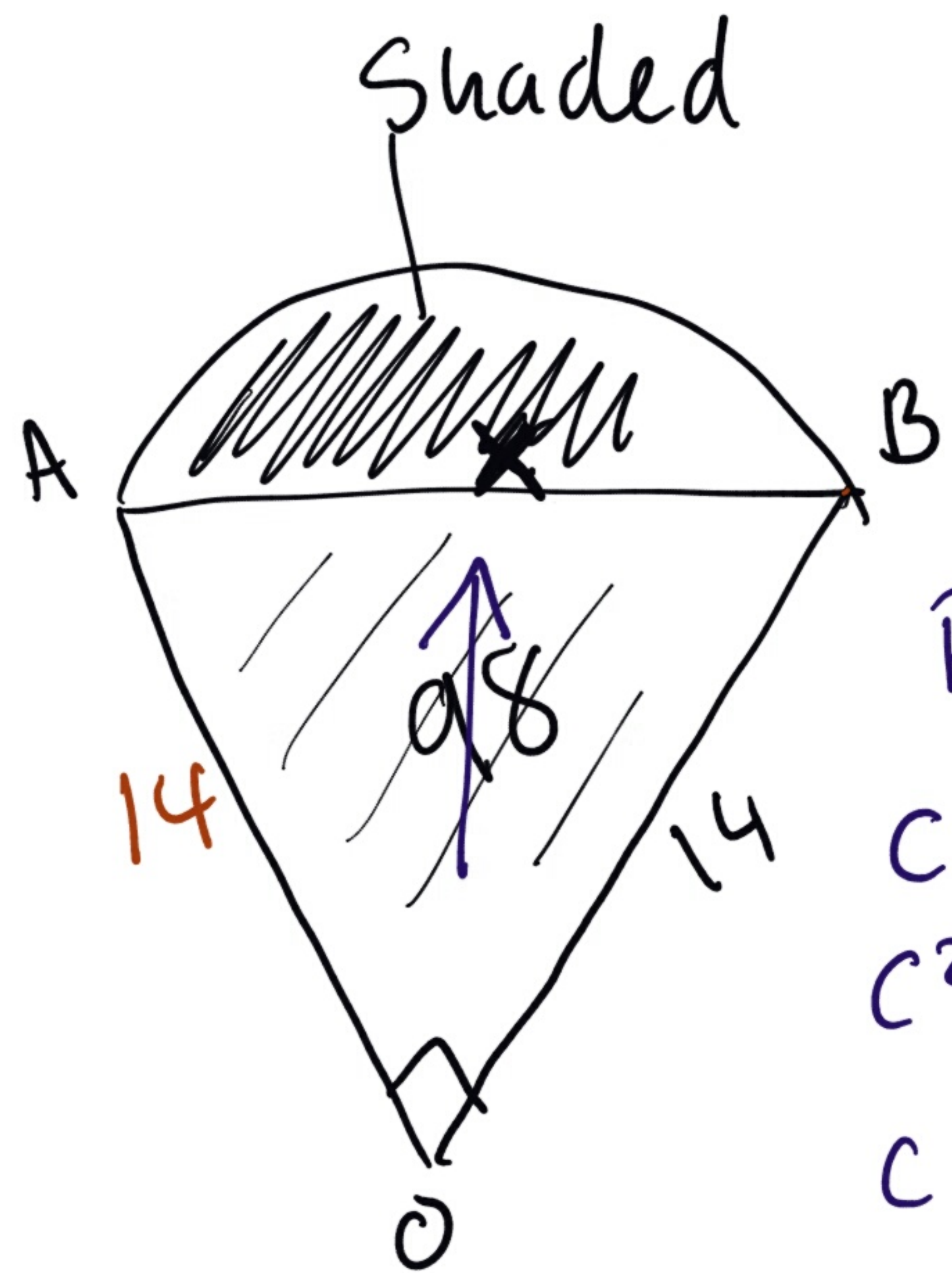
$$A = \left(\frac{22}{7}\right) \times (7)^2$$

$$A = 154$$

Shaded
Square - Circle

$$196 - 154 = 42 \text{ cm}^2$$

Q19



Area $\triangle OAB$

$$A = \frac{1}{2} ah$$

$$A = \frac{1}{2} (14)(14)$$

$$A = 7(14)$$

$$A = 98 \text{ cm}^2$$

Pythagoras

$$c^2 = a^2 + b^2$$

$$c^2 = 14^2 + 14^2$$

$$c^2 = 392$$

$$c = \sqrt{392}$$

$$c = 19.79$$

$$19.8$$

Sector

$$A = \pi r^2 \left(\frac{\theta}{360} \right)$$

$$A = \left(\frac{22}{7} \right) \times (14)^2 \times \left(\frac{90}{360} \right) = 154$$

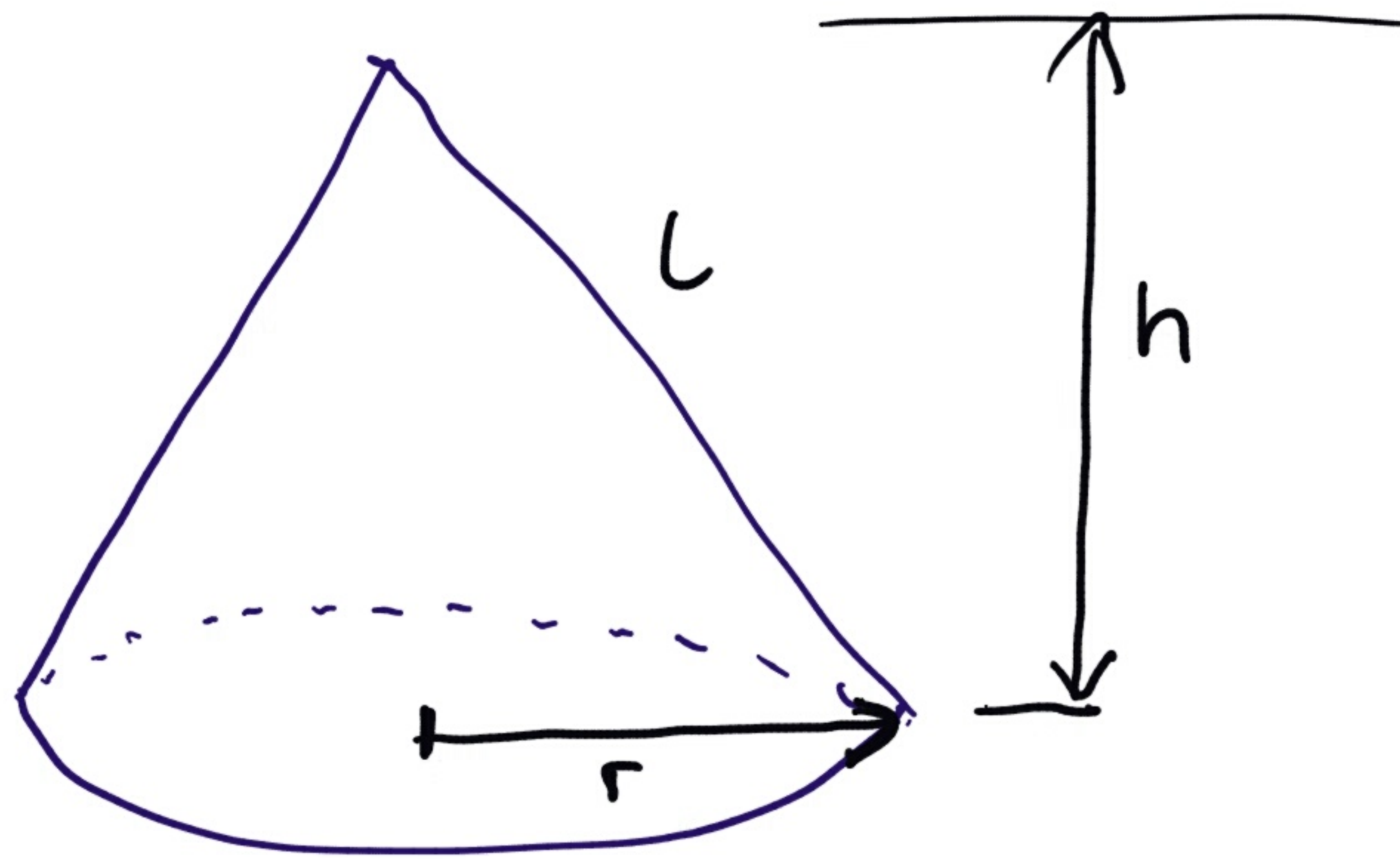
$$\pi = \frac{22}{7}$$

Shaded area

Sector - Triangle

$$154 - 98 = 56 \text{ cm}^2$$

The Cone

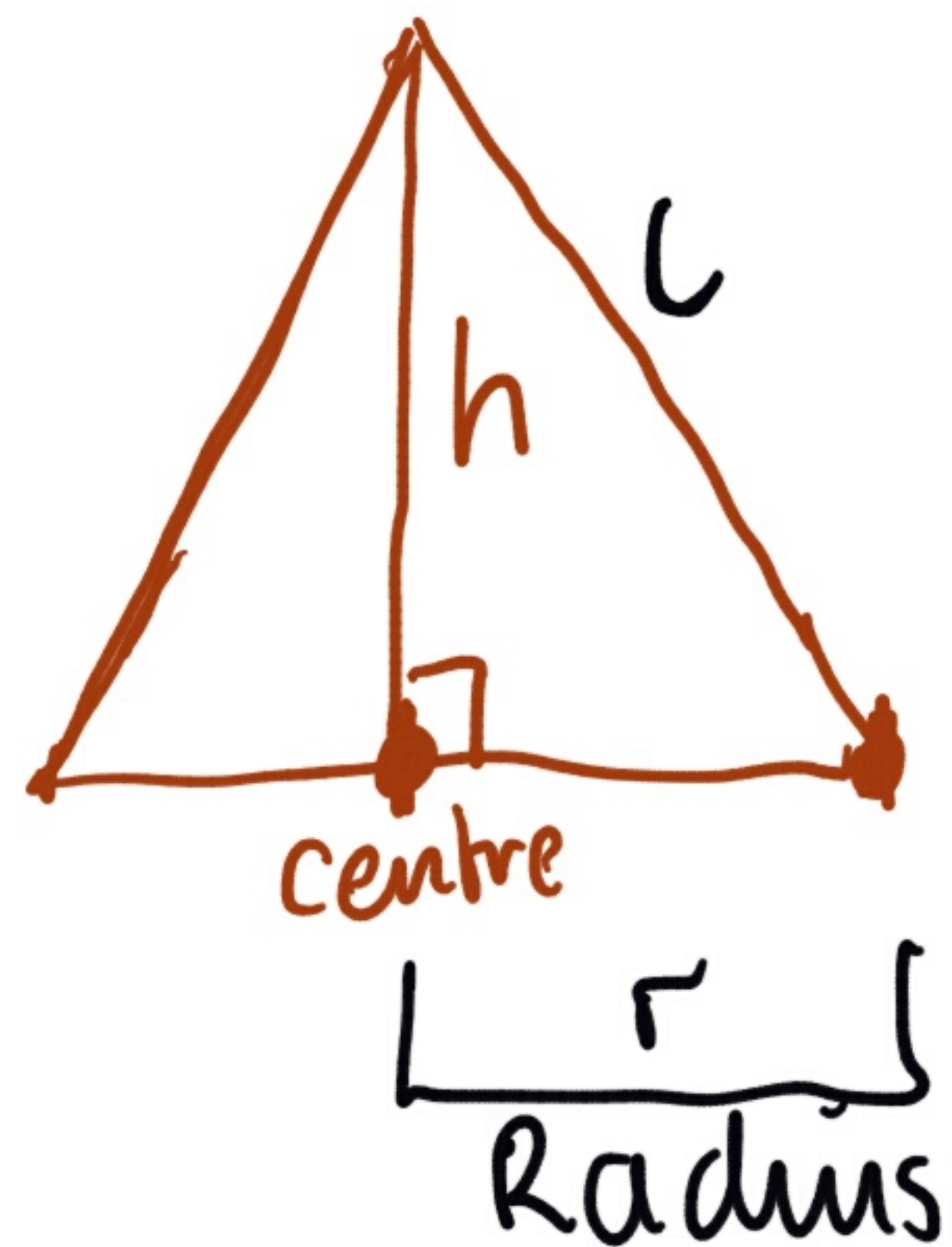
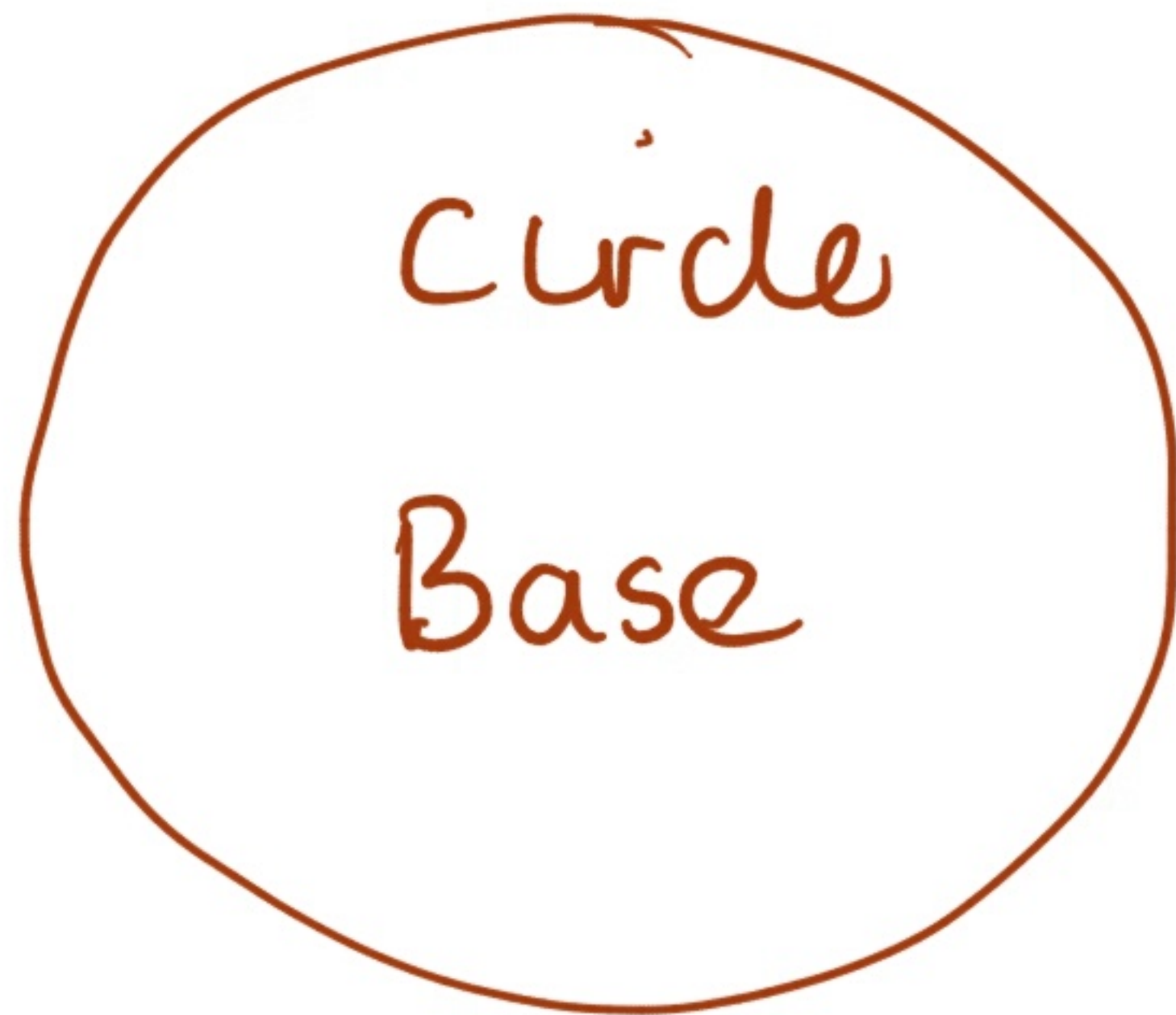


Log Tables Pg 10.

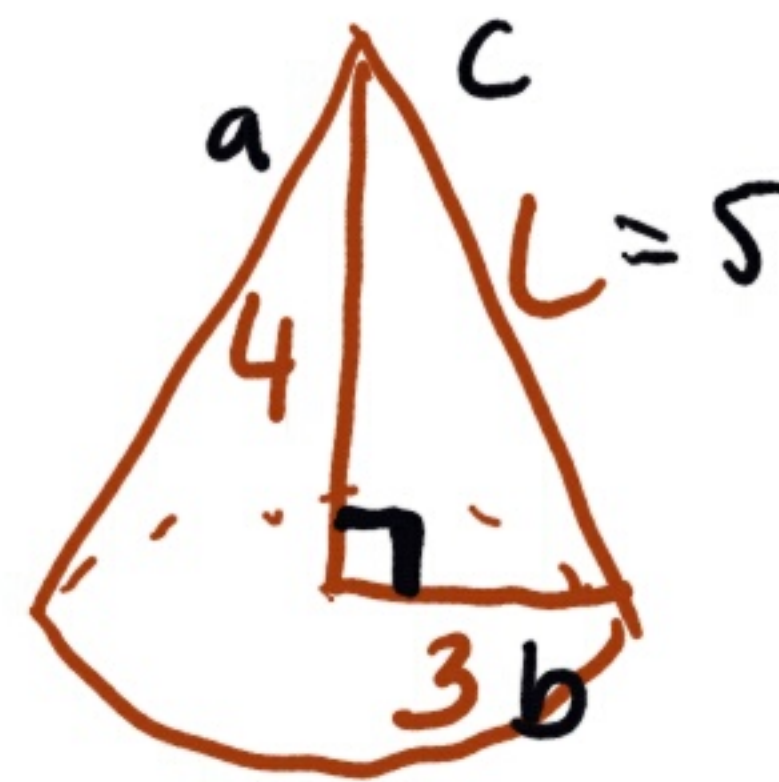
A represents the curved surface area.

V represents the volume of the solid.

Cone



Use pythagoras to find L



$$c^2 = a^2 + b^2$$

$$c^2 = 4^2 + 3^2$$

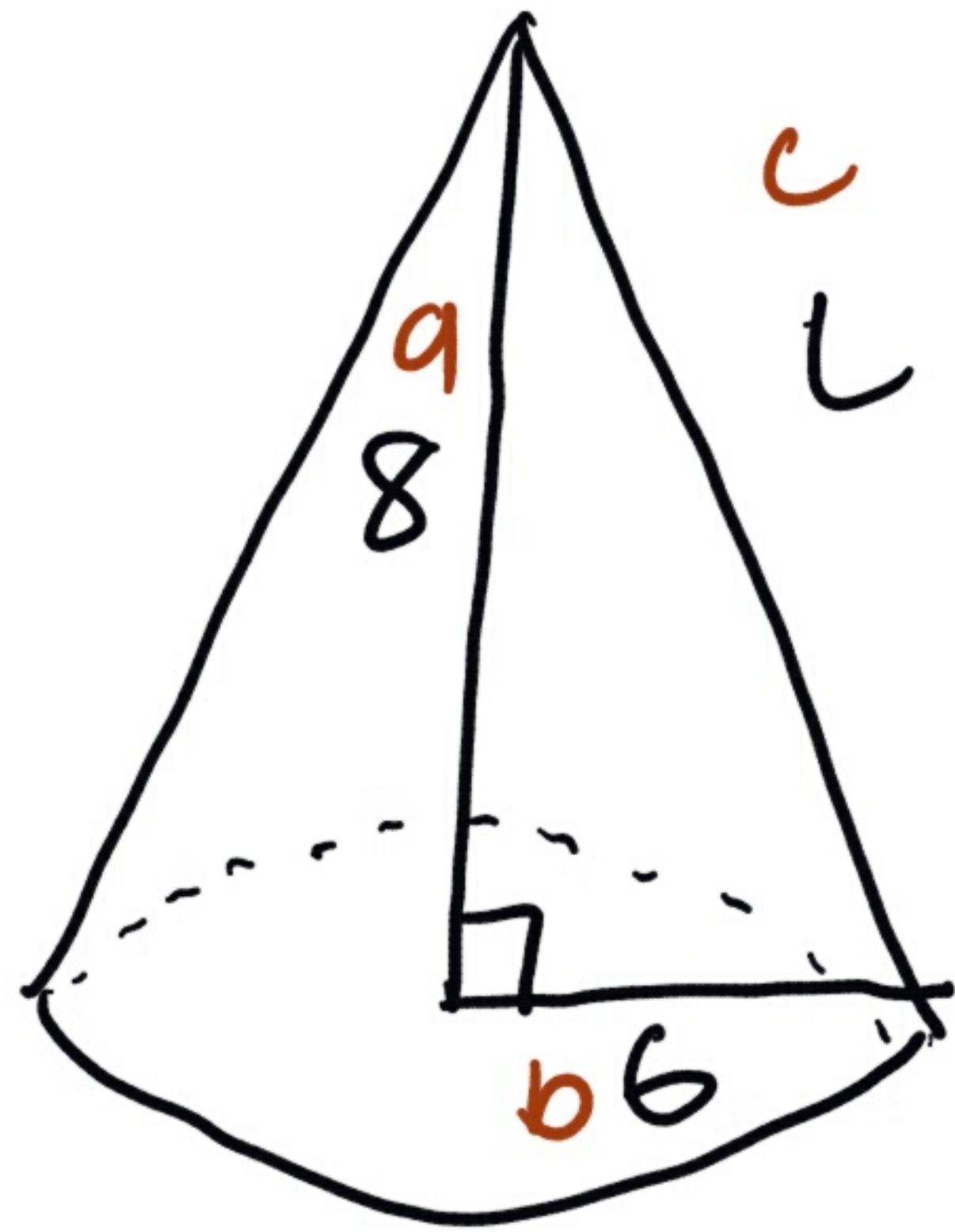
$$c^2 = 16 + 9$$

$$c^2 = 25$$

$$c = \sqrt{25}$$

$$c = 5$$

Eg 2) Find l



$$c^2 = a^2 + b^2$$

$$c^2 = 8^2 + 6^2$$

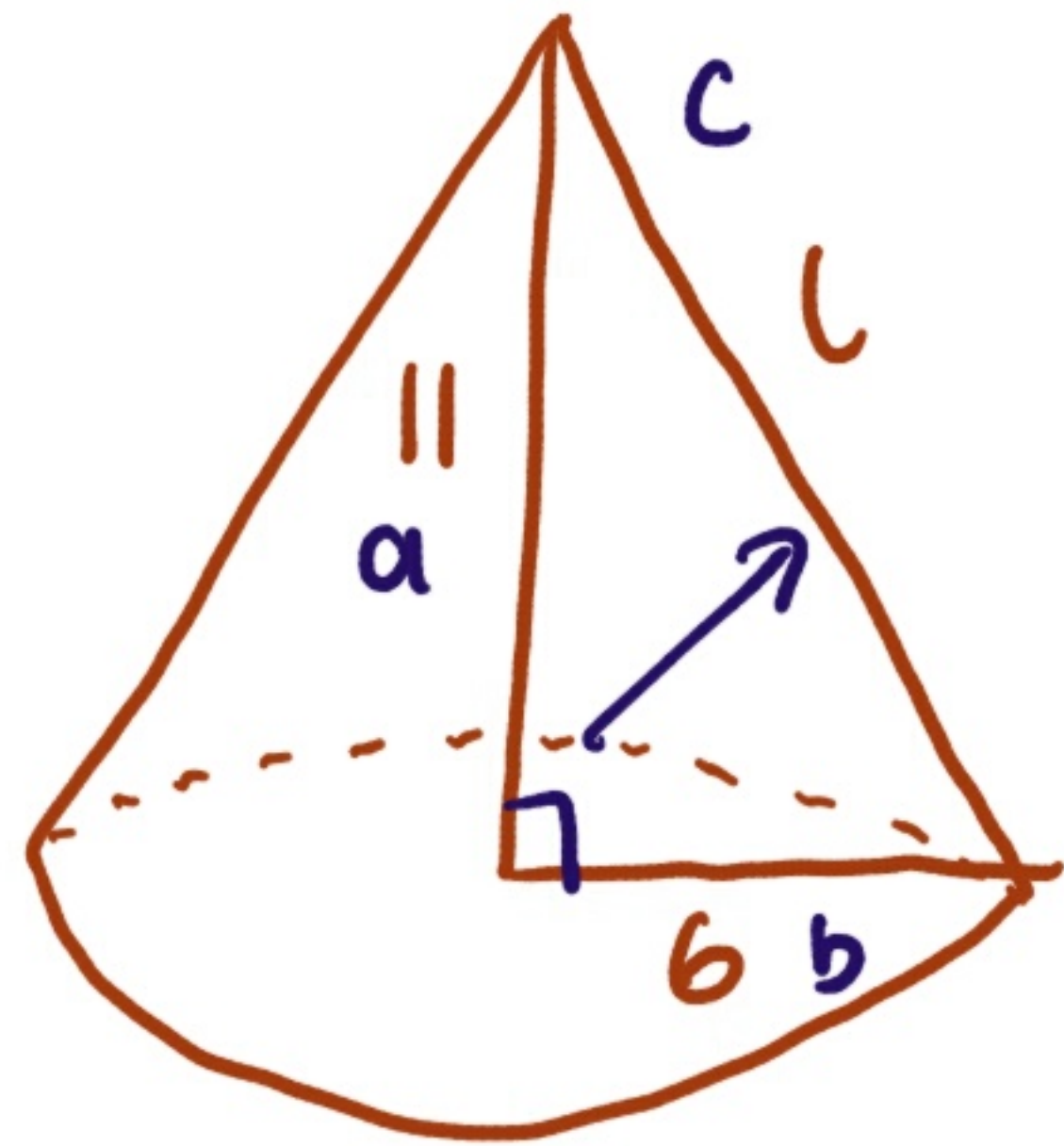
$$c^2 = 64 + 36$$

$$c^2 = 100$$

$$c = \sqrt{100}$$

$$c = 10$$

Cone Questions



Find l the nearest cm. slant of the cone to the

Pythagoras

$$c^2 = a^2 + b^2 \quad \text{Pg 16}$$

$$l^2 = 11^2 + 6^2$$

$$l^2 = 121 + 36$$

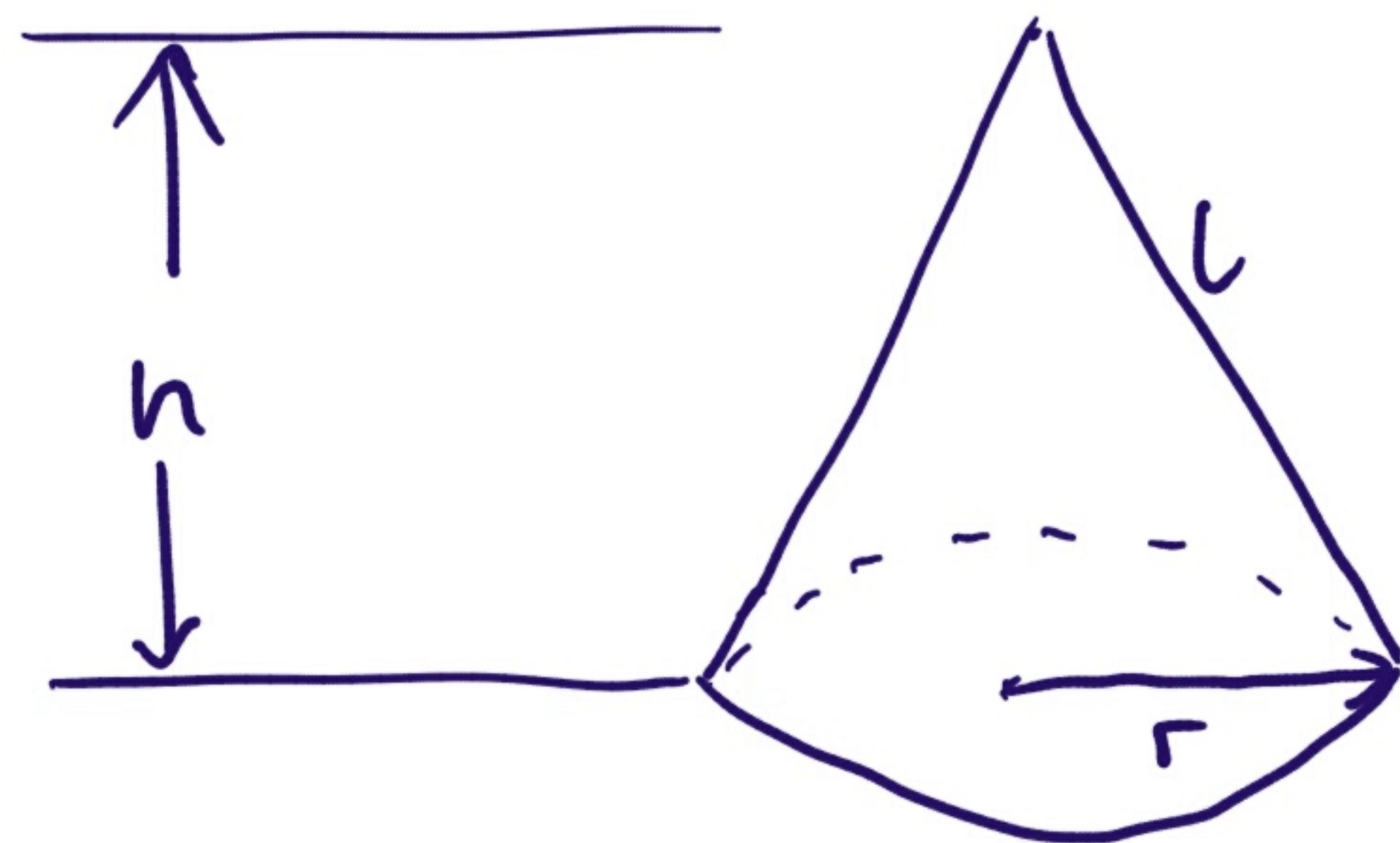
$$l^2 = 157$$

$$l = \sqrt{157} \quad [50]$$

$$l = 12.52$$

13cm.

Pg 10 Log Tables Cone



$$A = \pi r L$$

$$V = \frac{1}{3} \pi r^2 h$$

$$\pi = 3.14 \text{ OR } \frac{22}{7}$$

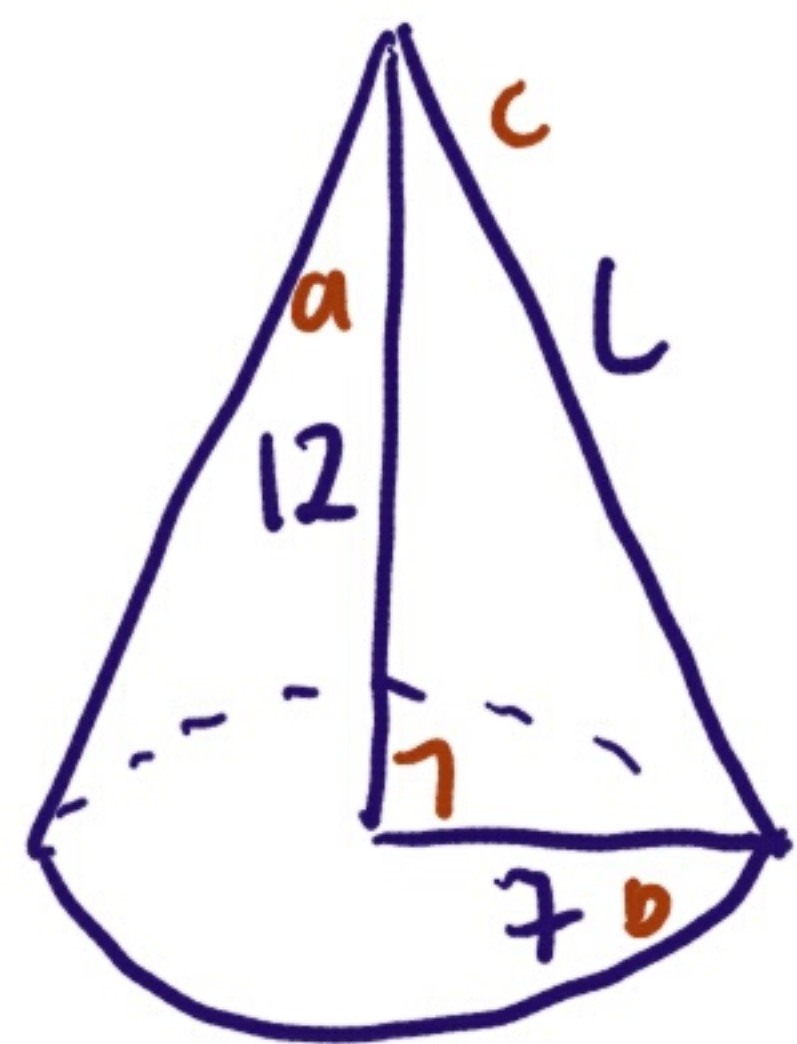
OR π

r = radius

L = slant

h = height

Eg 1 Find L, the volume (V) and (A) the curved surface area



$$c^2 = a^2 + b^2$$

$$L^2 = 12^2 + 7^2$$

$$L^2 = 144 + 49$$

$$L^2 = 193$$

$$L = \sqrt{193} \text{ [SD]}$$

$$L = 13.89$$

$$L = \underline{\underline{14}}$$

$$V = \frac{1}{3} \pi r^2 h$$

$$= \frac{1}{3} \times (3.14) \times (7)^2 \times (12)$$

Calculator

$$V = 615.44 \text{ cm}^3$$

$$\pi = 3.14$$

$$r = 7$$

$$h = 12$$

$$A = \pi r L$$

$$\pi = 3.14$$

$$r = 7$$

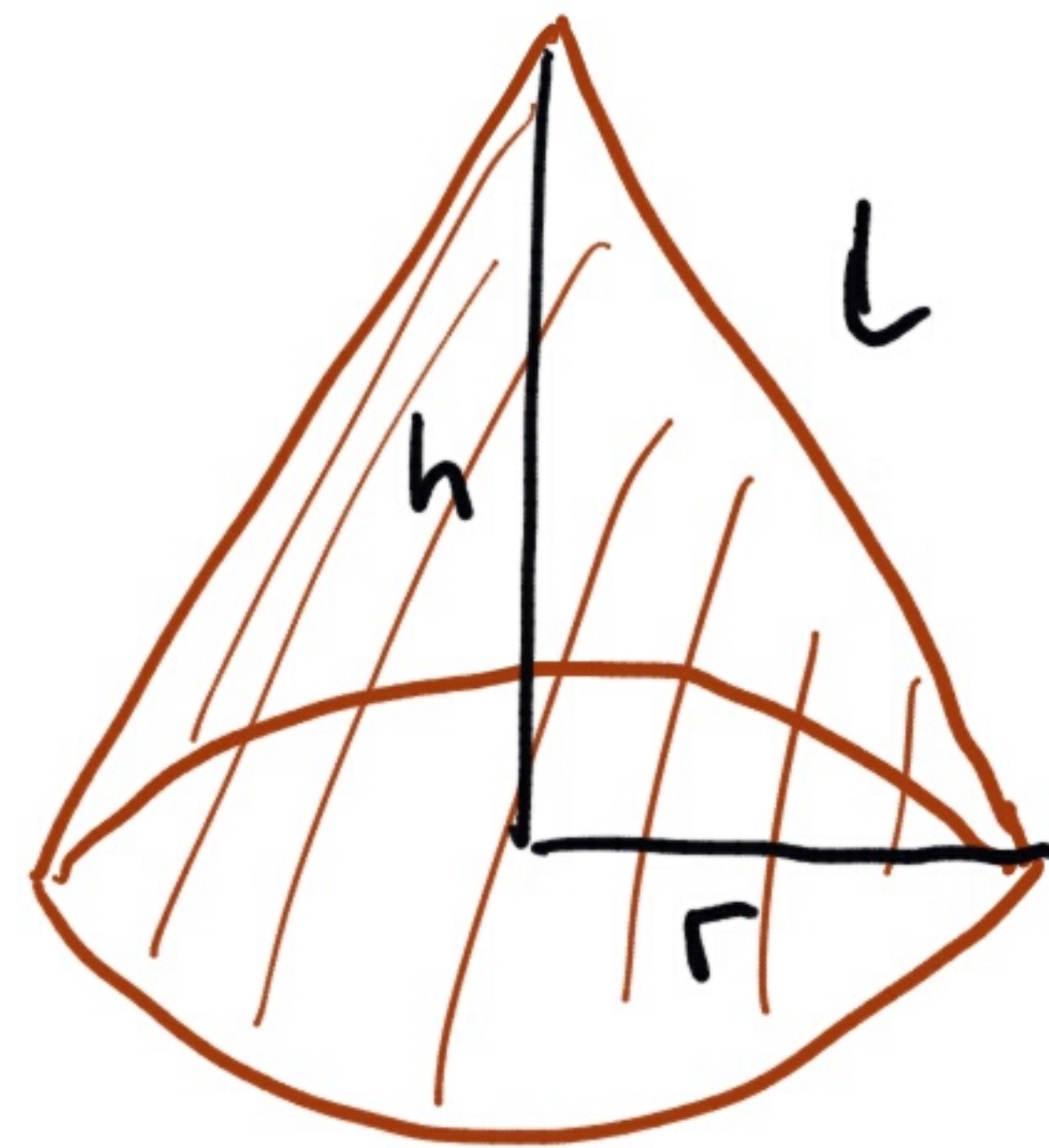
$$L = 14$$

$$A = (3.14) \times (7) \times (14)$$

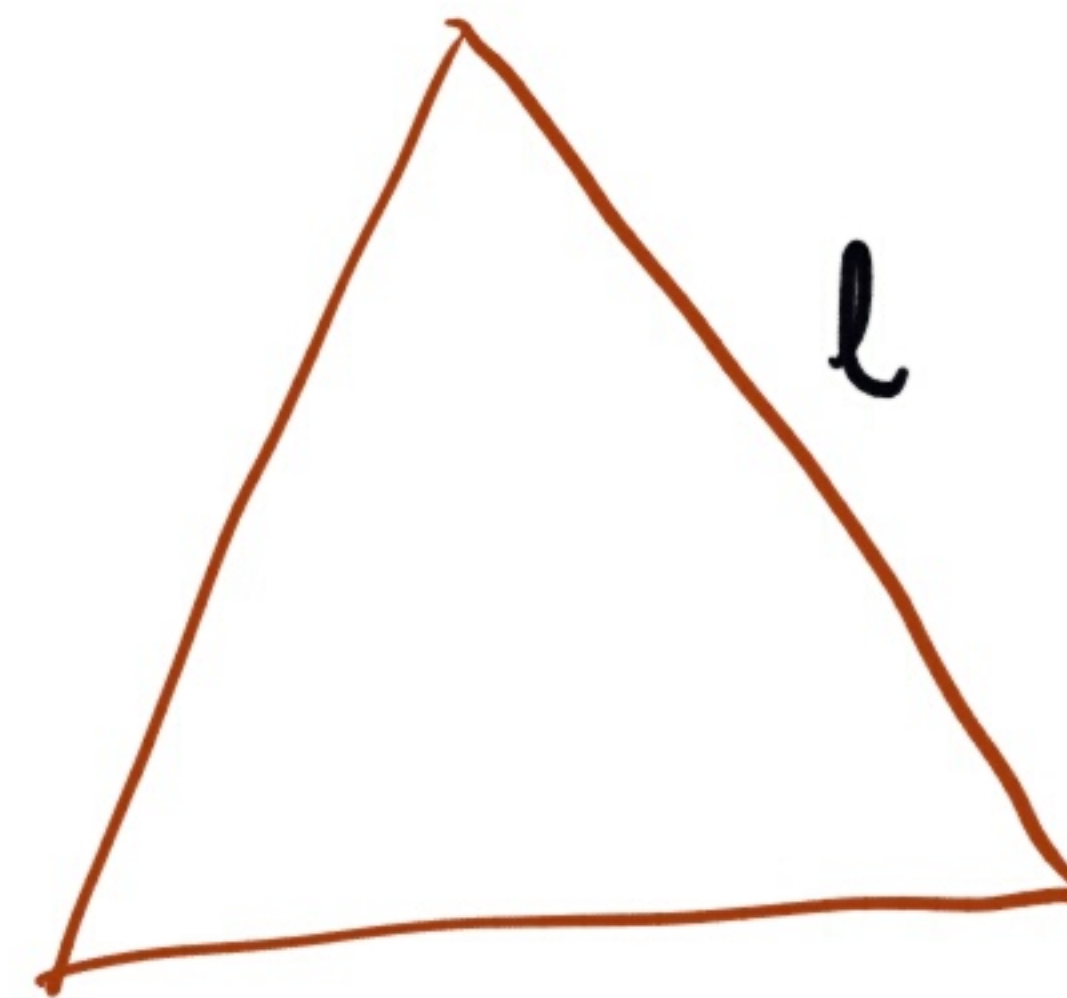
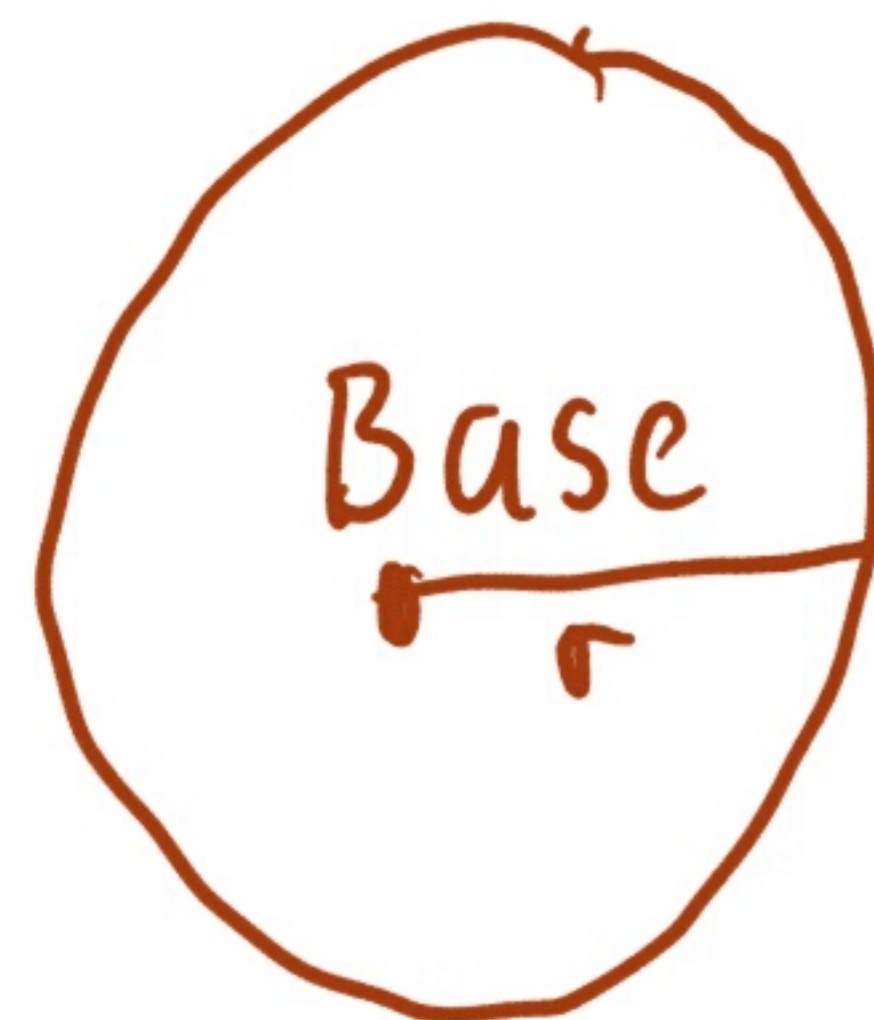
Calculator

$$A = 307.72$$

Total surface Area of a cone.



Net of cone.



Formula for the total surface area

$$\pi r l + \pi r^2$$

$$\pi = 3.14$$

$$r = 6$$

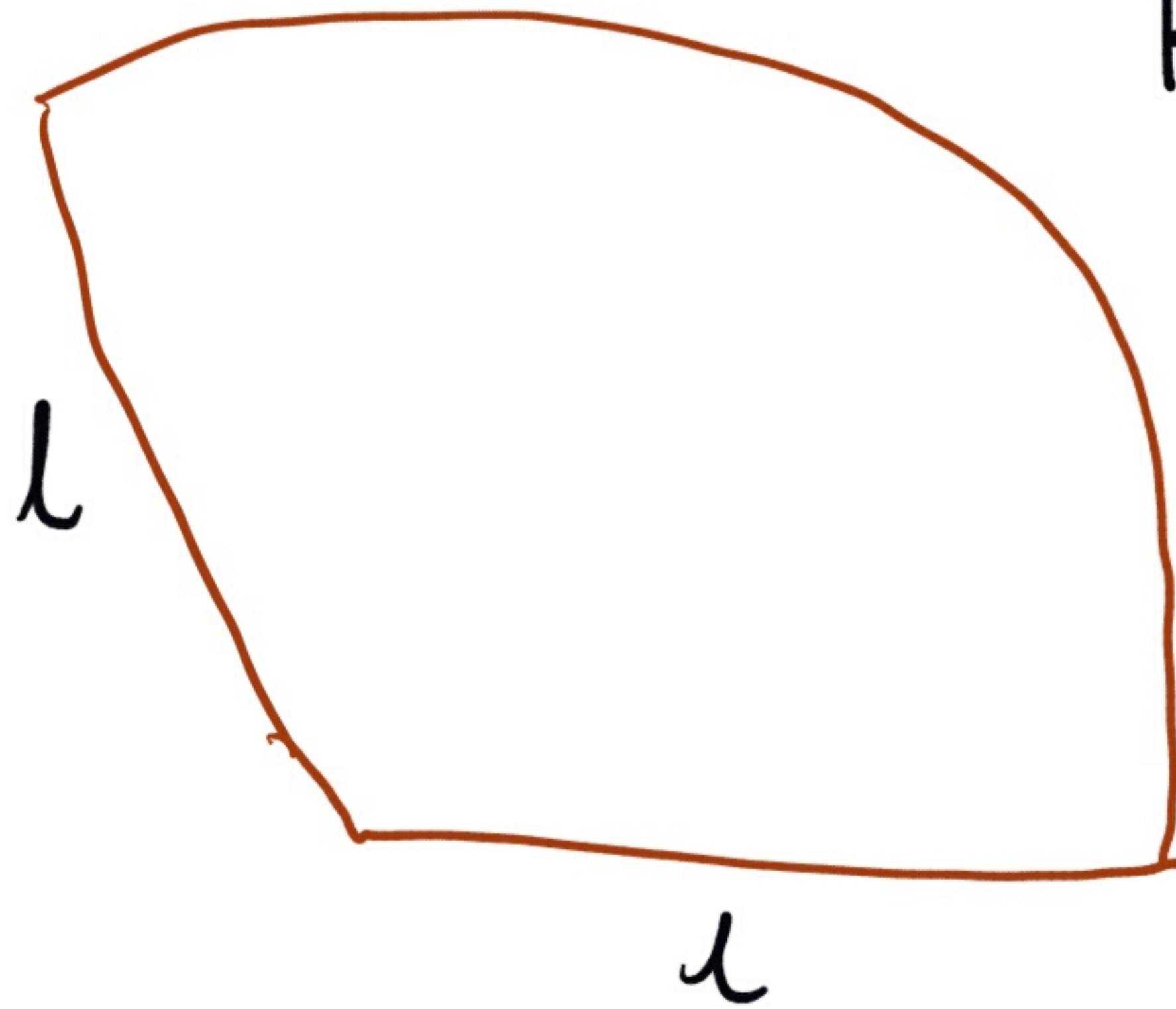
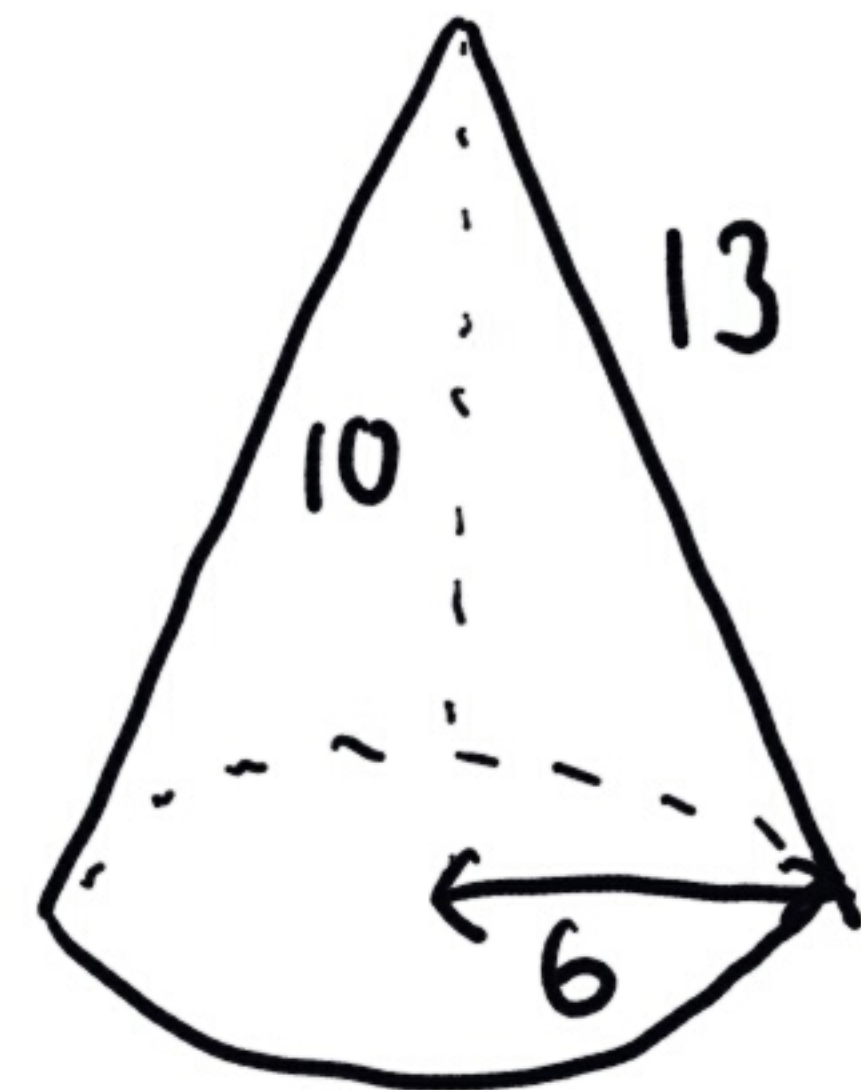
$$l = 13$$

$$\pi r l + \pi r^2$$

$$(3.14)(6)(13) + (3.14)(6)^2$$

$$244.92 + 113.04$$

$$= 357.96.$$



Radius of the sector is l