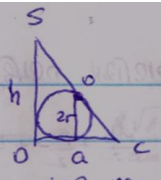
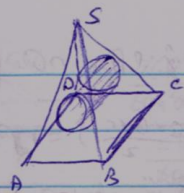
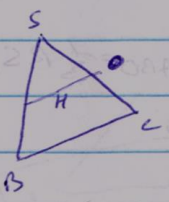


3.25
a



radius of inscribed sphere is equal to radius of inscribed circle

$$S_{SPC} = \frac{ah}{2} = rp \Rightarrow r = \frac{ah}{2p} = \frac{ah}{2 \left(\frac{a+h+\sqrt{a^2+h^2}}{2} \right)} = \frac{ah}{a+h+\sqrt{a^2+h^2}}$$



H → (BC parallel) line parallel to BC

$$\frac{H}{BC} = \frac{SO}{SC} = \frac{SC - OC}{SC} = 1 - \frac{OC}{SC} = 1 - \frac{2r}{h}$$

$$H = BC \left(1 - \frac{2r}{h} \right) = a \left(1 - \frac{2r}{h} \right) = \frac{a}{h} (h - 2r)$$