

Adam Turnbull

RE Equality

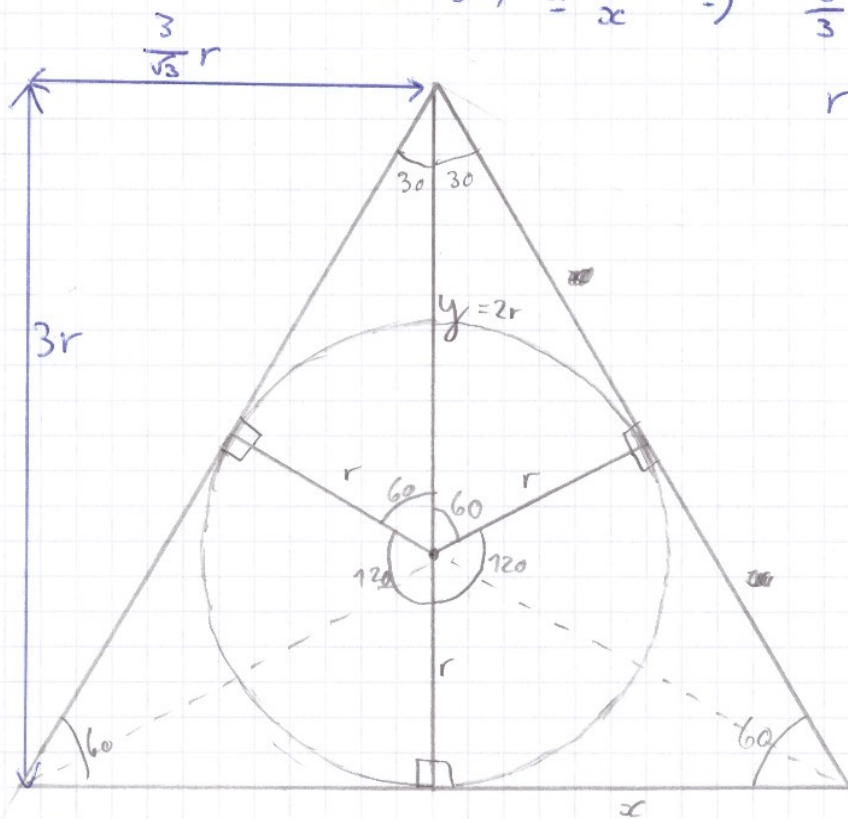
$$\sin(30) = \frac{r}{y} \Rightarrow \frac{1}{2} = \frac{r}{y}$$

$$r = \frac{1}{2}y$$

$$y = 2r$$

$$\tan(30) = \frac{r}{x} \Rightarrow \frac{\sqrt{3}}{3} = \frac{r}{x}$$

$$r = \frac{\sqrt{3}}{3}x$$



$$h = 3r$$

$$x = \frac{3}{\sqrt{3}}r$$

$$3r \left( \frac{3}{\sqrt{3}}r \right) = 3\sqrt{3}r^2$$

$$\frac{\pi}{3\sqrt{3}} \times 100 = \boxed{60.46\%}$$

$$3\sqrt{3}r^2 : \pi r^2$$

$$3\sqrt{3} : \pi$$