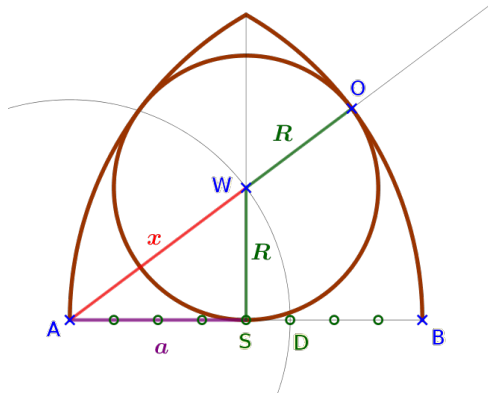




Důkaz tvrzení, že  $|AW| = \frac{5}{8}|AB|$ :



Jelikož  $|AO| = |AB|$ , tak platí, že

$$R = 2a - x$$

Pythagorova věta pro  $\triangle ASW$ :

$$x^2 = a^2 + (2a - x)^2$$

$$x^2 = a^2 + 4a^2 - 4ax + x^2$$

$$4ax = 5a^2$$

$$4x = 5a$$

$$x = \frac{5}{4}a$$

Ale  $a = \frac{1}{2}|AB|$ , pročež

$$x = |AD| = \frac{5}{4} \cdot \frac{1}{2}|AB| = \underline{\underline{\frac{5}{8}|AB|}} \quad \square$$