



$$AD^2 + DC^2 = (AC)^2$$

$$m^2 + L^2 = 4 \cdot m^2$$

$$L^2 = 3 \cdot m^2$$

$$L = \sqrt{3} \cdot m$$

$$L = m + 2 \cdot r + d$$

$$\sqrt{3} \cdot m = m + 2 \cdot r + d$$

$$m \cdot (\sqrt{3} - 1) = 2 \cdot r + d$$

$$m \cdot (\sqrt{3} - 1) - d = 2 \cdot r$$

$$r = \frac{m \cdot (\sqrt{3} - 1) - d}{2}$$

Triángulo ABC es equilateral. Luego ángulo CAB = 60°
 Ángulo OAD = 30°
 Tramo AO
 AO = m + r
 Tramo DO
 DO = AO * sin(30°)
 DO = AO * 0.5
 DO = (m + r) * 0.5
 d = DO - r
 d = m * 0.5 + r * 0.5 - r
 d = m * 0.5 - r * 0.5



$$d = m \cdot 0.5 - r \cdot 0.5$$

$$r = \frac{m \cdot (\sqrt{3} - 1) - d}{2}$$

$$r = \frac{m \cdot (\sqrt{3} - 1) - (m \cdot 0.5 - r \cdot 0.5)}{2}$$

$$r = \frac{m \cdot (\sqrt{3} - 1.5) + r \cdot 0.5}{2}$$

$$2 \cdot r = m \cdot (\sqrt{3} - 1.5) + r \cdot 0.5$$

$$1.5 \cdot r = m \cdot (\sqrt{3} - 1.5)$$

$$r = \frac{m \cdot (\sqrt{3} - 1.5)}{1.5}$$



$$r = \frac{m \cdot (\sqrt{3} - 1.5)}{1.5}$$

$$r = m \cdot (3 \cdot 0.5 - 1.5) / 1.5$$

$$r / m = (3 \cdot 0.5 - 1.5) / 1.5$$

$$r / m = 0.1547 \text{ -}$$