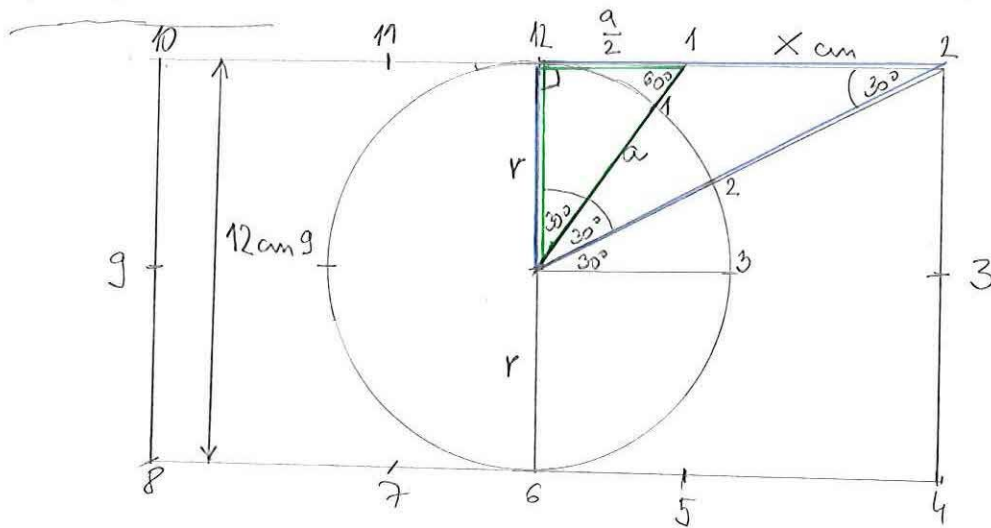


# Problem 3. (David's mamma)

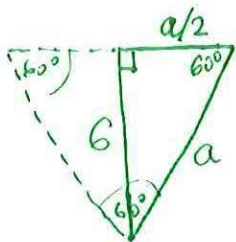


$$x = ?$$

$$2r = 12 \text{ cm}$$

$$r = 6 \text{ cm}$$

Vi kan använda Pythagoras sats på den gröna och blåa triangeln.



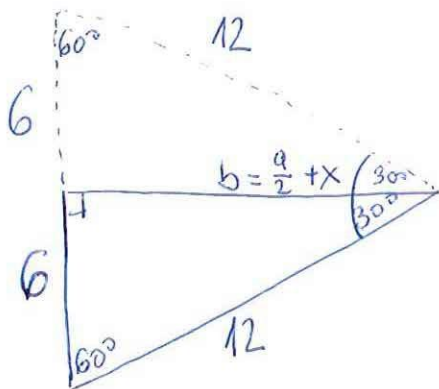
$$a^2 - \left(\frac{a}{2}\right)^2 = 6^2$$

$$\frac{3}{4} a^2 = 36$$

$$a^2 = 48$$

$$a = 4\sqrt{3} \text{ cm}$$

$$\boxed{\frac{a}{2} = 2\sqrt{3} \text{ cm}}$$



$$b^2 = 12^2 - 6^2 = 144 - 36 = 108$$

$$\boxed{b = 6\sqrt{3} \text{ cm}}$$

$$x = b - \frac{a}{2} = 6\sqrt{3} - 2\sqrt{3} = 4\sqrt{3} \text{ cm}$$

$$\boxed{x = 4\sqrt{3} \text{ cm}}$$

→ värd