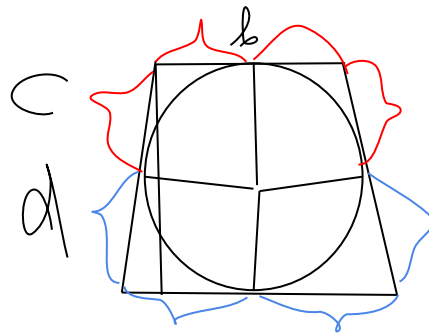
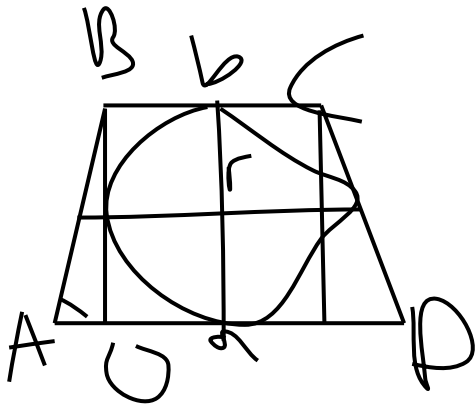
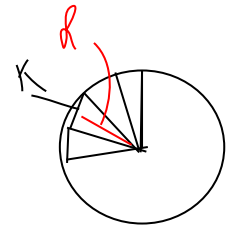


В равнобокую трапецию с меньшим основанием "b" и углом при большем основании 60 градусов вписан круг. Найти площадь круга.



$$\begin{aligned}
 S_1 &= kh/2 \\
 S &= nS_1 = nkh/2 = \\
 &= (nk)h/2 = \\
 &= P \cdot h/2 \rightarrow C \cdot R/2 = \\
 &= 2\pi R \cdot R/2 = \pi R^2 \\
 C &= 2\pi R
 \end{aligned}$$



$$AO = AB/2$$

$$a = b + AB$$

$$BO^2 = AB^2 - AO^2 = AB^2 - (AB/2)^2$$

$$BO^2 = AB^2 - AB^2/4 = 3AB^2/4$$

$$BO = AB\sqrt{3}/2$$

$$b = 2c$$

$$a = 2d$$

$$b + AB = 2d$$

$$2c + c + d = 2d$$

$$3c = d$$

$$a = 6c$$

$$a = 3b$$

$$AB = 2b$$

$$BO = 2b\sqrt{3}/2 = b\sqrt{3}$$

$$r = b\sqrt{3}/2$$

$$S = \pi (b\sqrt{3}/2)^2 = \pi \cdot b^2 \cdot 3/4$$

$$\text{Ответ: } \pi \cdot b^2 \cdot 3/4$$