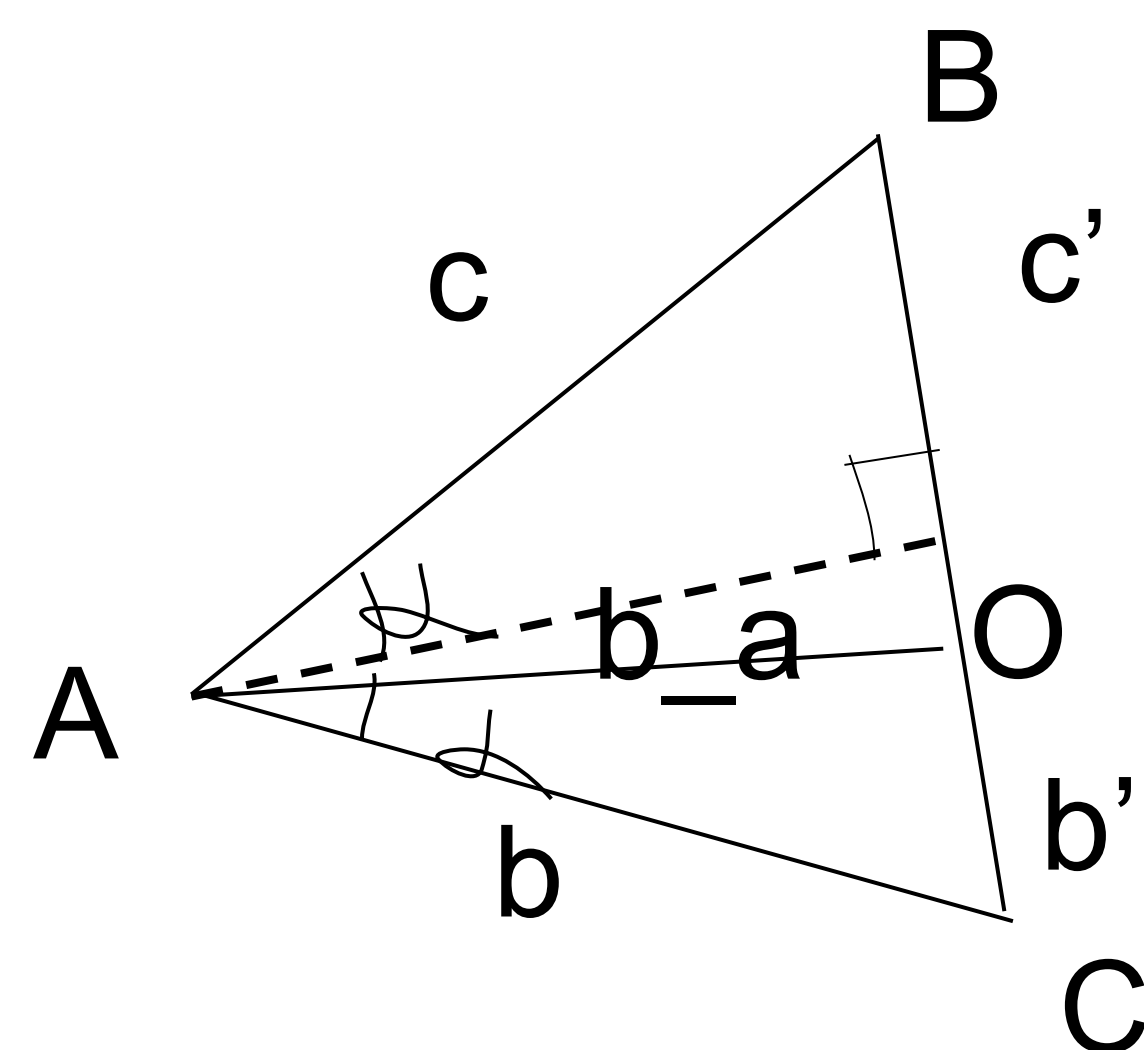


Дан треугольник ABC, и две его стороны b, c. Найти b'/c'



$$S(ABO) = \frac{1}{2}(c \cdot b_a \cdot \sin(A/2))$$

$$S(AOC) = \frac{1}{2}(b \cdot b_a \cdot \sin(A/2))$$

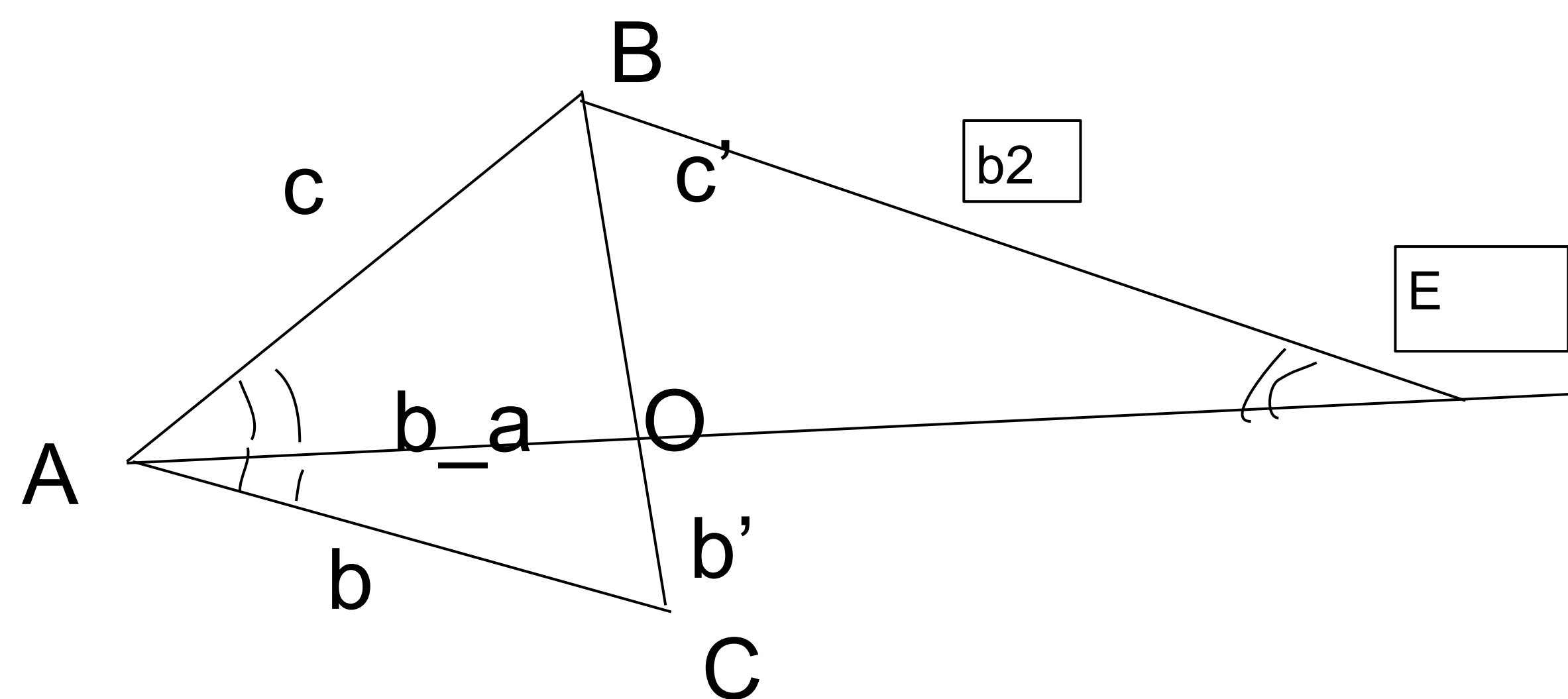
$$S(ABO) = \frac{1}{2}(c' \cdot h)$$

$$S(AOC) = \frac{1}{2}(b' \cdot h)$$

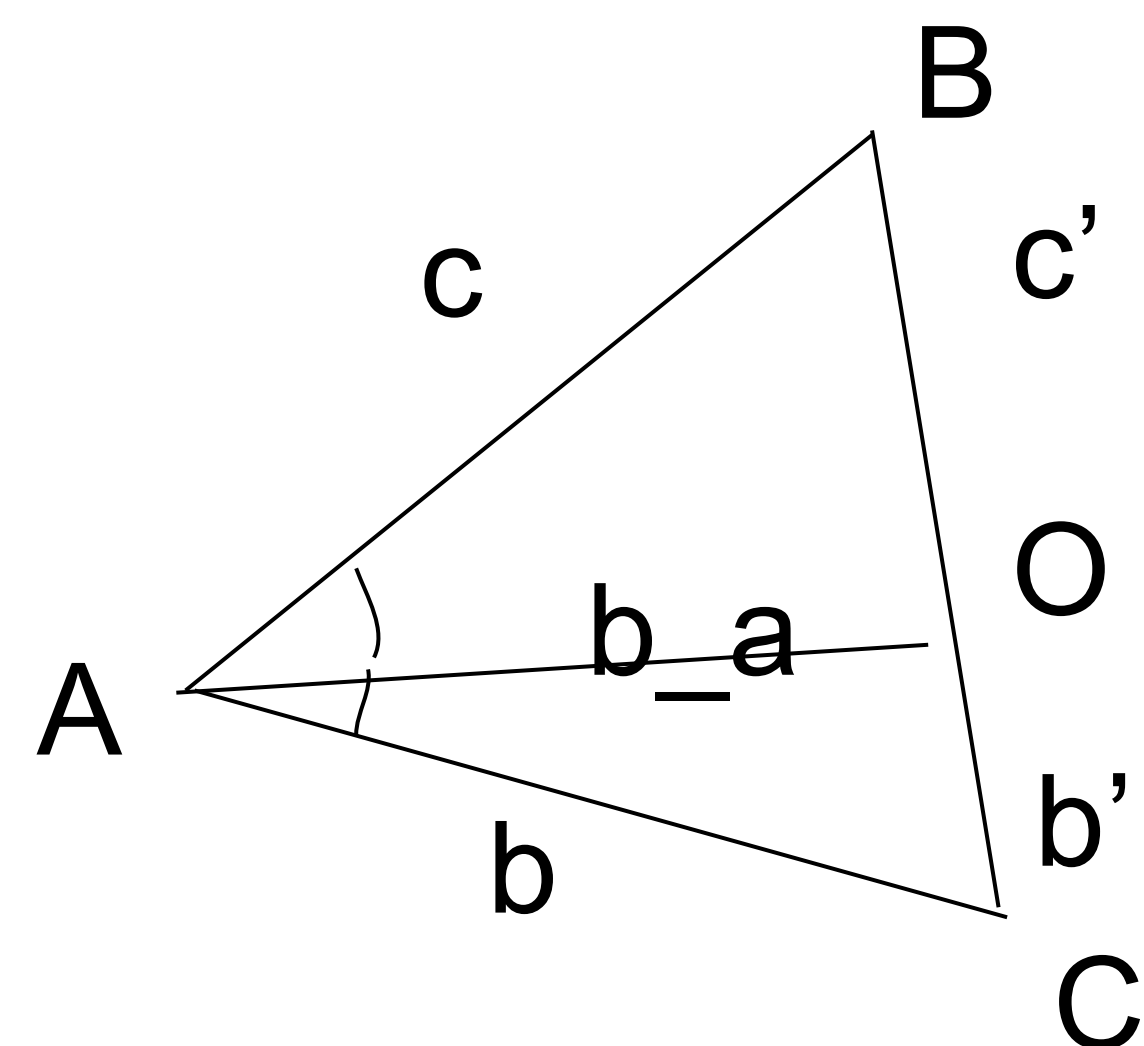
$$S(AOC)/S(ABO) = (b' \cdot h)/(c' \cdot h) = b'/c'$$

$$S(AOC)/S(ABO) = (b \cdot b_a \cdot \sin(A/2))/(c \cdot b_a \cdot \sin(A/2)) = b/c$$

$$b/c = b'/c'$$



Дан треугольник ABC, и три его стороны a, b, c. Найти b', c'



a

$$a = b' + c' \quad b'/c' = b/c$$

$$b' = bc'/c$$

$$a = bc'/c + c'$$

$$a = c'(b/c + 1)$$

$$c' = ac/(b+c)$$

$$b' = a - c' = a - ac/(b+c) = a(1 - c/(b+c)) = ab/(b+c)$$