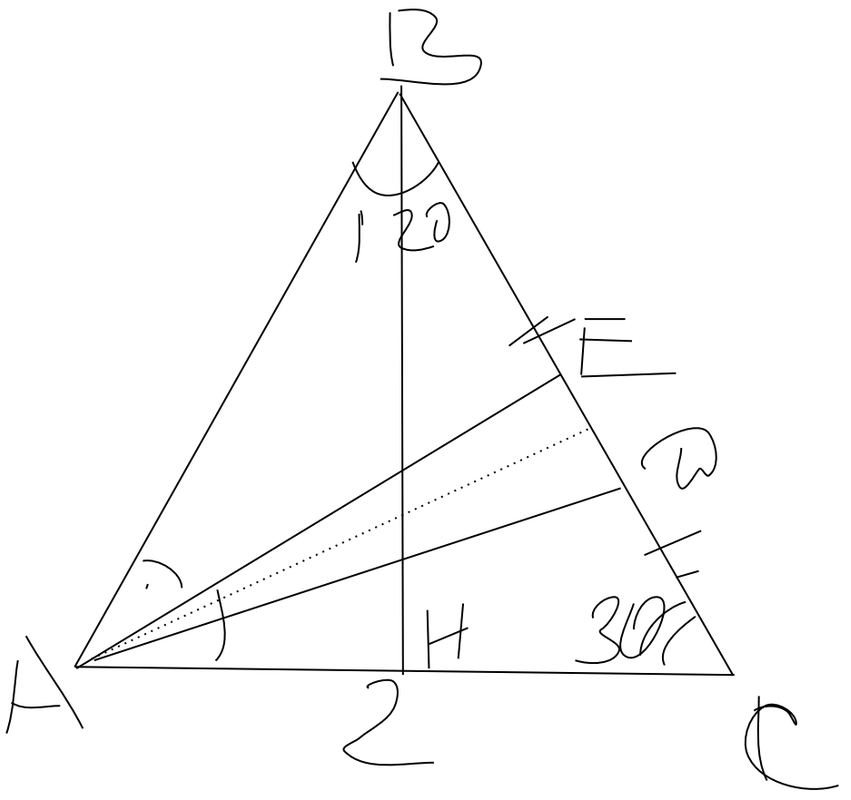
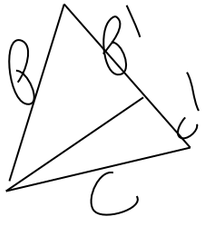
В трABC боковые стороны AB и BC равны, основание AC=2, а угол при основании равен 30 градусов
Из вершины A к боковой стороне BC проведена биссектриса AE и медиана AD. Найти S(трADE)



b/c=b'/c'



b(a) => (2V(bc(p-a)*p))/(c+b)
S(ADE)

BC=2x
BH=x
4x^2=1+x^2
4x^2-x^2=1
3x^2=1
x^2=⅓
x=1/V3
BC=2/V3

AD^2=DC^2+AC^2-2DC*AC*cos30
AD^2=1/3+4-2*1/V3*2*V3/2
AD^2=13/3-2=7/3
AD=V7/V3

AC/AB=EC/BE
2/(2/V3)=EC/BE
V3=EC/BE

Найти площадь AEC и ABD

S(ABC)=1/V3
S(ABD)=1/2V3

S(AED)/S(ABD)=h*ED/2 / h*BD/2 = ED/BD
(1-V3)^2/(2V3)/(2/(3+V3)+(1-V3)^2/(2V3))=
(1-V3)^2/(2V3)/[2(2V3)+(1-V3)^2(3+V3)]/(3+V3)(2V3))=
(1-V3)^2/(2V3)/[4V3+(1-2V3+3)(3+V3)]/(3+V3)(2V3))=
(1-V3)^2/(2V3)/[4V3+3+V3-6V3-6+9+3V3]/(3+V3)(2V3))=
(1-V3)^2/(2V3)/(6+2V3)/(3+V3)(2V3))=
(1-V3)^2/(2V3)/2(3+V3)/(3+V3)(2V3))=
(1-V3)^2/(2V3)/1/V3=V3(1-V3)^2/(2V3)=(1-V3)^2/2=(1-2V3+3)/2=
=(4-2V3)/2=2(2-V3)/2=2-V3

EC=x
BE=y

x/y=V3
x+y=2/V3

x=yV3
yV3+y=2/V3

x=yV3
y(V3+1)=2/V3

x=yV3
y=2/V3(V3+1)

x=yV3
y=2/(3+V3)

x=2V3/V3(V3+1)
y=2/(3+V3)

x=2/(V3+1)
y=2/(3+V3)

EC=2/(V3+1)
BE=2/(3+V3)

-DE=DC-EC=1/V3-2/(V3+1)=
=[V3+1-2V3]/(3+V3)=
=(1-V3)/V3(V3+1)=
=(1-V3)^2/V3(1-3)=
=(1-V3)^2/(-2V3)

DE=(1-V3)^2/(2V3)

S(AED)/S(ABD)=2-V3
S(AED)=S(ABD)(2-V3)
S(AED)=(2-V3)/2V3
Answer:(2-V3)/2V3