8. Найдите значение выражения $(6+\sqrt{7})^2+(6-\sqrt{7})^2$.

Ответ: 86.

(6+V7)^2+(6-V7)^2=(x+y)^2+(x-y)^2=x^2+2xy+y^2+x^2-2xy+y^2=x^2+y^2+x^2+y^2=2x^2+2y^2=
=2*6^2+2*V7^2=72+14=86

(x+y)*(x+y)=(x+y)*x+(x+y)*y=x^2+yx+xy+y^2=x^2+2xy+y^2
(x-y)*(x-y)=(x-y)*(x + (-y))=(x-y)*x+(x-y)*(-y)=x^2-xy-xy+y^2=x^2-2xy+y^2

(x-y)=(x + (-y))

x=6
y=V7