1) 100/(\sqrt{11-6 \sqrt{2} } +1)=100/( \sqrt{(3- \sqrt{2} )^2} +1)=100/(3- \sqrt{2} +1)=100/(4- \sqrt{2} )=100(4+ \sqrt{2} )/(4- \sqrt{2} )(4+ \sqrt{2} )=100(4+ \sqrt{2} )/(16-2)=100(4+ \sqrt{2} )/14=50(4+ \sqrt{2} )/7  
2) \sqrt{2- \sqrt{3} } / \sqrt{2+ \sqrt{3} } = \sqrt{(2- \sqrt{3} )^2} / \sqrt{(2- \sqrt{3})(2+ \sqrt{3} ) }= (2- \sqrt{3} )/ \sqrt{4-3} =2- \sqrt{3}   
3)(3+2 \sqrt{2} )(1- \sqrt{2} )^2=(1+ \sqrt{2} )^2*(1- \sqrt{2} )^2=[(1- \sqrt{2} )(1+ \sqrt{2} )]^2=(1-2)^2=(-1)^2=1  
4) \sqrt{23-4 \sqrt{15} } = \sqrt{(2 \sqrt{5}- \sqrt{3} )^2 } =2 \sqrt{5} - \sqrt{3}   
5)( \sqrt{a^3b} - \sqrt{ab} )^2=[ \sqrt{ab} *(a-1)]^2=ab(a-1)^2  
6  
1)2+ √x/(√x +1)=(2√x+2+√x)/(√x +1)=(2+3√x)/(√x +1)  
2)(2+3√x)/(√x+1) \*3√x(√x+1)/4(3√x+2)=3√x/4