

2.62
pk

$$n=1$$

$$1-2+1=0 \checkmark$$

$$n=k$$

$$1-2+3-4+\dots+(2k-1)-2k+(2k-1)-(2k-2)+\dots-2+1=0$$

$$n=k+1$$

$$\underbrace{1-2+3-4+\dots+(2k-1)-2k}_{0} + \underbrace{(2k+1)-(2k+2)+\dots+(2k+1)-2k}_{0} + \underbrace{(2k-1)-(2k-2)+\dots-2+1}_{0} = 0$$

$$0 + (2k+1) - (2k+2) + (2k+1) - 2k = 0 \checkmark$$