

a) Vu que  $45 - 2 = 43$ , on a

$$\sum_{i=2}^{45} 1 = \sum_{i=0}^{43} 1 = 44 = \sum_{i=49}^{49+43} 1 = \sum_{i=49}^{92} 1$$

b) On a  $20 - 10 = 10$

$$\sum_{i=10}^{20} i = \sum_{i=0}^{10} (i+10) = 165$$

$$= \sum_{i=49}^{59} (i-39)$$

c)  $180 - (-4) = 180 + 4 = 184$ , et donc:

$$\sum_{k=-4}^{180} \frac{k}{k+5} = \sum_{k=0}^{184} \frac{k-4}{k-4+5} = \sum_{k=0}^{184} \frac{k-4}{k+1}$$

$$= \sum_{k=49}^{233} \frac{k-53}{k-48}$$