Answer on Question#45033, Physics, Other

Let us use 2nd Newtons law to solve the problem. Because block lays on the surface, normal force is equal to gravitational force: $N = mg$. The friction force is $F_f = \mu N = \mu m g$, where μ is the coefficient of friction. Thus, horizontal component of the net force acting on a block is $F = F_0 - F_f = F_0 - \mu m g$, where F_0 is the constant force. According to 2nd Newtons law,

$$a = \frac{F}{m} = \frac{F_0}{m} - \mu g \ .$$

Given $F_0 = 300\,N$, $m = 50\,kg$, $\mu = 0.5$, obtain $a = 1.095 \frac{m}{s^2}$ - this is the acceleration of the block.