1. Which has greater deceleration, a bicycle slowing from 3 m/s to a stop in 6 seconds or a car slowing from 20 m/s to 15 m/s in 6 seconds?

$v_{10} = 3\frac{m}{s},\ v_1 = 0\frac{m}{s}$ $t_1 = 6\,s$ $v_{20} = 20\frac{m}{s},\ v_2 = 15\frac{m}{s}$ $t_2 = 6\,s$	*Solution.* The acceleration of the bodies are: $a_1 = \frac{v_1 - v_{10}}{t_1},\quad a_2 = \frac{v_2 - v_{20}}{t_2}.$ Let check the dimension: $[a_1] = [a_2] = \frac{m/s}{s} = \frac{m}{s^2}.$
$a_1, a_2 - ?$	

Let evaluate the quantities: $a_1 = \frac{0-3}{6} = -0.5\left(\frac{m}{s^2}\right),\quad a_2 = \frac{15-20}{6} \approx -0.83\left(\frac{m}{s^2}\right).$

So, a car decelerates faster.

Answer: the deceleration of a car is greater.