Pt.2 assume the driver has a mass of 75.7 kg .
What horizontal force does the seat exert
on the driver?
Answer in units of N
avg acc=46.1403
avg force=41230.97208

Solution:

$\mathrm{a} = 46.1403 \dfrac{\mathrm{N}}{\mathrm{kg}} - \text{acceleration of the car;}$

$\mathrm{m} = 75.7\ \mathrm{kg} - \text{mass of the driver;}$

Newton's second law for the driver along the X-axis:

$\mathrm{x}: \mathrm{F}_{\mathrm{seat}\to\mathrm{driver}} = \mathrm{ma} = 75.7\mathrm{kg} \cdot 46.1403 \dfrac{\mathrm{N}}{\mathrm{kg}} = 3493\ \mathrm{N}$

Answer: horizontal force that seat exert of the driver is $3493\ \mathrm{N}$.