Answer on Question #61888-Physics-Other

The traffic light turns green, and the driver of a high-performance car slams the accelerator to the floor. The accelerometer registers 22.0m/s2. Convert this reading to km/min2

Solution

$$a = 22.0 \frac{\text{m}}{\text{s}^2} = 22.0 \frac{\text{m}}{\text{s}^2} \frac{km}{1000 \; m} \left(\frac{60 \; s}{min}\right)^2 = 22.0 \frac{60^2}{1000} \frac{km}{min^2} = 79.2 \frac{km}{min^2}.$$

Answer: $79.2 \; \frac{km}{min^2}$.