Answer on Question 55148, Physics, Other

Question:

What is the acceleration of an automobile of mass $1.30 \cdot 10^3 kg$ when it is subjected to a forward force of $2.65 \cdot 10^3 N$?

Solution:

We can find the acceleration of an automobile from the Newton's second law of motion:

$$F = ma,$$

$$a = \frac{F}{m} = \frac{2.65 \cdot 10^3 N}{1.30 \cdot 10^3 kg} = 2.04 \frac{m}{s^2}.$$

Answer:

$a = 2.04 \frac{m}{s^2}.$