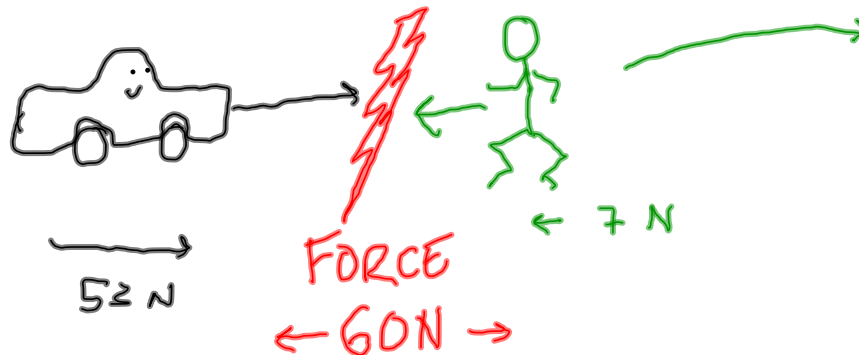


Momentum:

Concept + formula + application

Objects have momentum because of their
mass & velocity

Objects with momentum can cause
forces when they hit other objects



$$F = m \cdot a$$

$$a = \boxed{F} \div \boxed{m}$$

⑨ $\rho = m \cdot v$

↙ ↘

equally important,

<p>↑ mass</p> <p>↑ v</p> <p>$m = 0?$</p> <p>$v = 0?$</p>	<p>↑ ρ</p> <p>↑ ρ</p> <p>$\rho = 0$</p> <p>$\rho = 0$</p>
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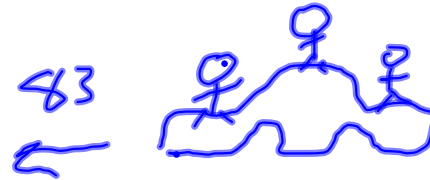
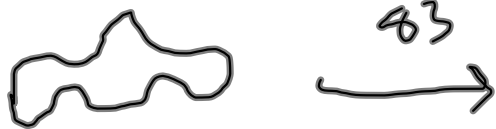
10a) ① $v = 83 \text{ m/s}$; $m = 1000 \text{ kg}$

② p

③ $p = m \cdot v$

④ $p = 1000 \cdot 83$
 $= 83000$

⑤ $p = 83000 \frac{\text{kg} \cdot \text{m}}{\text{s}}$



10b)

$$1000 + 54.3 =$$

$$m = 1162 \text{ kg}$$

⋮

$$p = 1162 \cdot 83$$

$$= 96446$$

$$p = 96446 \frac{\text{kg} \cdot \text{m}}{\text{s}}$$