

Answer on Question #47028 – Math – Vector Calculus

Question: a horizontal force 35 N acting to the right would be indicated by a line and if the chosen vector scale were $1\text{ cm} = 10\text{ N}$, how long the line would be?

- 1) 3.5
- 2) 3
- 3) 4.5
- 4) 2

Solution: the chosen vector scale is

$$1\text{ cm} = 10\text{ N}$$

It means that to a force 1 N corresponds a line that has length 0.1 cm .

$$1\text{ N} = \frac{1}{10}\text{ cm} = 0.1\text{ cm}$$

Then a force 35 N acting on a body would be indicated by a line of length

$$L = 0.1 \cdot 35\text{ cm} = 3.5\text{ cm}$$

Answer:

- 1) 3.5 cm