

Review - Momentum

- 1.) Is there a difference between \vec{p} and $\Delta\vec{p}$, if so what is the difference?
- 2.) What are the units of change in momentum and of impulse?
- 3.) Is impulse the same as force, if not what is the difference?

Do - page 193 #1-4, 6, 8, 16, 18, 19, 21, 23.

Answers

1.) $351 \text{ kg} \times \frac{\text{m}}{\text{s}}$

2.) $4.8 \text{ N} \times \text{s}$

3.) $42 \frac{\text{m}}{\text{s}}$

4a.) $60.0 \text{ N} \times \text{s}$

b.) $20.0 \frac{\text{m}}{\text{s}}$

6a.) $2.35 \times 10^4 \text{ kg} \times \frac{\text{m}}{\text{s}}$

b.) $2.6 \times 10^4 \text{ N}$

8.) $-2.5 \times 10^2 \text{ N}$

16a.) $7.8 \times 10^2 \text{ kg} \times \frac{\text{m}}{\text{s}}$

b.) $-7.8 \times 10^2 \text{ kg} \times \frac{\text{m}}{\text{s}}$

c.) $7.8 \times 10^2 \text{ kg} \times \frac{\text{m}}{\text{s}}$

d.) $-7.8 \times 10^2 \text{ kg} \times \frac{\text{m}}{\text{s}}$

e.) $-6.1 \frac{\text{m}}{\text{s}}$

18a.) $1.0 \times 10^2 \text{ kg} \times \frac{\text{m}}{\text{s}}$

b.) $-5.0 \times 10^2 \text{ kg} \times \frac{\text{m}}{\text{s}}$

19.) $11 \frac{\text{m}}{\text{s}}$

21.) $10.6 \frac{\text{m}}{\text{s}}$

23.) 1:-1.5, the smaller mass student must have the large speed.