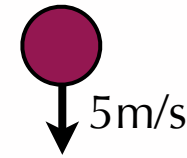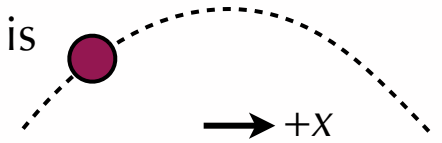1. An object is falling through the air at constant velocity 5m/s. The net force on the object

A) points upward   **B) points downward**   **C) is zero**
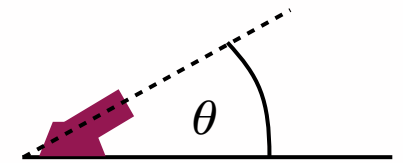
↓ 5m/s

---

2. A ball is thrown through the air. The horizontal component a_x of the ball is

A) −9.8m/s²   **B) 0m/s²**   **C) +9.8m/s²**

→ +x

---

3. What angle θ should a cannon be shot to get the farthest range?

A) 0°   **B) 30°**   **C) 45°**   **D) 60°**   **E) 90°**

θ

---

4. The same constant force, 5N, is applied to two different blocks. If both blocks start at rest, which is moving faster after 5 seconds?

A) the 1kg block   **B) the 8kg block**
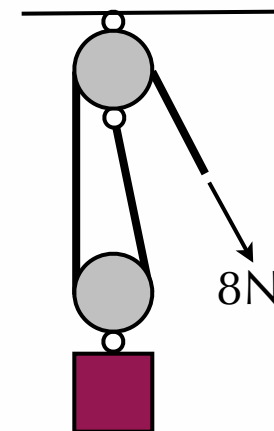
C) they both move the same speed

5N → 1kg

5N → 8kg

---

5. My mass on the moon is ___ my mass on Earth.

A) larger than   **B) the same as**   **C) smaller than**

---

6. The figure shows a pair of ideal pulleys and a massless rope. If 8N of force is placed on the free end of the rope, how much force is applied upward on the bottom pulley?

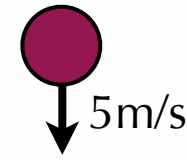**A) 4N**   **B) 8N**   **C) 12N**   **D) 16N**   **E) 24N**
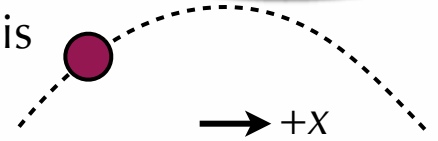
8N

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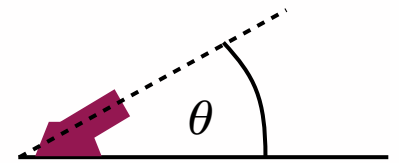A) **points upward**   B) **points downward**   C) **is zero**

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