

forces:

1. c 2. d 3. a 4. c 5. d 6. d

$$7. F = ma \text{ ----> } (68 \text{ kg})(2.5 \text{ m/s}^2) = \mathbf{170 \text{ N}}$$

$$8. \text{Wt.} = mg \text{ ----> } (64 \text{ kg})(9.8 \text{ m/s}^2) = \mathbf{627.2 \text{ N}}$$

$$9. \text{a) } F = ma \text{ ----> } a = F/m = 3,600 \text{ N} / 1.6 \times 10^3 \text{ kg} = \mathbf{2.25 \text{ m/s}^2}$$

$$\text{b) } F = ma = (1.6 \times 10^3 \text{ kg})(4 \text{ m/s}) = \mathbf{6,400 \text{ N}}$$

10. b 11. law # 3 12. c 13. b 14. e