1. Basic Concept and formula
   a. Express power in term of energy and change in time
   b. Expression in term of force and velocity

2. A 50-kg person runs up the stairs 10 meters high in 2 minutes. Acceleration due to gravity (g) is $10\frac{m}{s^2}$. Determine the power.

3. You're riding a toboggan down an icy run to a frozen lake, and you accelerate the 80.0-kg combination of you and the toboggan from 1.0 m/s to 2.0 m/s in 2.0 s. How much power does that require?

4. A 1,000-kg car accelerates from 88 m/s to 100 m/s in 30 s. How much power does that require?

5. A 60.0-kg person is running and accelerates from 5.0 m/s to 7.0 m/s in 2.0 s. How much power does that require?

6. 3.A 120-kg linebacker accelerates from 5.0 m/s to 10.0 m/s in 1.0 s. How much power does that require?

7. 4.You're driving a snowmobile that accelerates from 10 m/s to 20 m/s over a time interval of 10.0 s. If you and the snowmobile together have a mass of 500 kg, how much power is used?

- Sources for problems: https://scienceknowledge.webador.com/physics-content/ib-physics/mechanics/work-energy-and-power/power
- Provided by: https://scienceknowledge.webador.com/