

Chapter Six Problems:

1. How much work is required to stop a 1500kg car moving at a speed of 25 m/s?
2. How much work is required to lift a 40kg crate 20m high?
3. How much work is done by a horizontal force of 150N that acts on a crate for a distance of 10m?
4. A 20kg crate is lifted 200m above the ground in 5 minutes. **A:** How much work is required to lift it 200m into the air? **B:** What is the average power exerted on the crate?
5. A 70N force is applied to a 10kg block at rest for 200m. **A:** How much work is done by the force? **B:** What is the final kinetic energy?
6. **A:** How much work is required to accelerate a 1500kg car from 15 m/s to 40 m/s? **B:** What is the average force if it reaches the 40 m/s while traveling a distance of 275m?