1. Write the four objectives of this section.

- 2. When is work done?
- 3. How is work calculated?
- 4. Why don't you do work when you try to lift a car?
- 5. Is the weight lifter in Figure 9-1 doing work?
- 6. What are the three units for work?
- 7. How big is a J?
- 8. Look at the practice hint, how do you get force, when it gives you kilograms?
- 9. What is power?
- 10. Why does running up the stairs use more power than walking up thes tairs?
- 11. What units is power measured in?

12. What is horsepower?

13. How does a jack make it easier to lift a car?

14. What two ways can machine make doing work easier?

15. Compare the amount of work done in Figure 9-3A and 9-3B.

16. Compare the amount of force needed in Figure 9-3A and 9-3B.

17. How do a car jack and a ramp make doing work easier?

18. What is mechanical advantage?

19. How is mechanical advantage calculated?

20. What does it mean if a machine has a mechanical advantage greater than one?

21. What does it mean if a machine has a mechanical advantage less than one?