Name Date Class

SECTION 1 Reinforcement

Work

Directions: *Use the formula* work = force × distance *to calculate the answers to each of the following questions.*

1. A box is pushed 40 m by a mover. The amount of work done was 2,240 J. How much force was exerted on the box?

2. A person expended 500 newtons to move a full wheelbarrow 30 meters. How much work was done?

Directions: *Use the formula* power = work/time *to calculate the power required in each of the following.*

3. A weightlifter lifts a 1,250-N barbell 2 m in 3 s. How much power was used to lift the barbell?

4. A crane lifts a 35,000-N steel girder a distance of 25 m in 45 s. How much power did the crane require to lift the girder? Write your answers in kilowatts.