## Work Examples

Name: $\qquad$ Date: $\qquad$

$$
W=F d \cos \theta
$$

1. A box is pushed along the ground with a constant speed with a force of 50 N . The box is pushed around a circle with a radius of 10 m four times. Calculate the amount of work done on the box.
2. A wheelbarrow is pushed with a force of 98 N at an angle of $25^{\circ}$ to the horizontal over a distance of 20 m . Calculate the work done on the wheelbarrow.
3. You are trying to stop a heavy cart that is rolling towards you. You apply a force of 140 N and it takes 7 m to stop the cart. Calculate the work you do on the cart.
4. 7000J of work is done on an object by a force of 45 N acting at $15^{\circ}$. Calculate the distance the object covers in this time.
5. A 15 kg object is lifted at a constant speed from the ground to a desktop that is 1.3 m above the ground. Calculate the work done on the object.
6. An object is pushed at a constant speed along the ground with a force of 400 N acting at a given angle. The object is pushed 12 m in total and 3800 J of work is done on it. Calculate the angle it was pushed at.
