Work Examples

Name: ______

Date: _____

$W = Fdcos\theta$

1. A box is pushed along the ground with a constant speed with a force of 50N. The box is pushed around a circle with a radius of 10 m four times. Calculate the amount of work done **on the** box.

A wheelbarrow is pushed with a force of 98 N at an angle of 25° to the horizontal over a distance of 20m. 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 140N and it takes 7m to stop the cart. Calculate the work you do **on the** cart.

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4. 7000J of work is done on an object by a force of 45 N acting at 15°. 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.