Name_____

- 1. Work is the product of the ______ exerted on an object and the distance the object moves in the ______ of the force.
- 2. The equation for work is ______.
- 3. The unit for work is the ______ which also called the _____.

4. Work is done on an object only if the object _____.

5. Work is done on an object only if the force and displacement are

For each problem, draw a diagram to make sure the force and displacement are in the same direction.

6. A person lifts a package weighing 75 N. If she lifts it 1.2 m off the floor, what work has she done?

7. When 142 J of work is done in pushing a box horizontally 13.3 m, how much force is applied?

8. What work is done when a person pushes a refrigerator weighing 720 N across a floor 12 m? (The force of friction between the refrigerator and the floor is 480 N.)

9. A sailor pulls a boat along a dock using a rope at an angle of 60.0° with the horizontal. How much work does the sailor do if he exerts a force of 255 N on the rope and pulls the boat 3.00 m? A girl pulls a wagon along a level path for a distance of 44 m. The handle of the wagon makes an angle of 22° above horizontal. If she pulls on the handle with a force of 87 N, how much work is done?

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