1. Work is the product of the $\qquad$ exerted on an object and the distance the object moves in the $\qquad$ of the force.
2. The equation for work is $\qquad$ .
3. The unit for work is the $\qquad$ which also called the $\qquad$ .
4. Work is done on an object only if the object $\qquad$ .
5. Work is done on an object only if the force and displacement are
$\qquad$
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 $60.0^{\circ}$ 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 $22^{\circ}$ above horizontal. If she pulls on the handle with a force of 87 N , how much work is done?
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