

Name: \_\_\_\_\_

Period: \_\_\_\_\_

Date: \_\_\_\_\_

**Work (J) = Force (N) x Distance (m)**

- 1) Amy uses 20N of force to push a lawn mower 10 meters. How much work does she do?
  
- 2) How much work does an elephant do while moving a circus wagon 20 meters with a pulling force of 200N?
  
- 3) A 900N mountain climber scales a 100m cliff. How much work is done by the mountain climber?
  
- 4) Shawn uses 45N of force to stop the cart 1 meter from running his foot over. How much work does he do?
  
- 5) How much work is done when a force of 33N pulls a wagon 13 meters?
  
- 6) How much work is required to pull a sled 5 meters if you use 60N of force?
  
- 7) Tommy does 15 Joules of work to push the pencil over 1 meter. How much force did he use?
  
- 8) Angela uses a force of 25 Newtons to lift her grocery bag while doing 50 Joules of work. How far did she lift the grocery bags?
  
- 9) The baseball player does 1234 Joules of work when hitting a baseball into left field. Assuming the baseball landed 100 meters away from home plate, how much force did the player use to hit the ball?

## Work Practice Problems Worksheet #1 ANSWER KEY

- 1) Amy uses 20N of force to push a lawn mower 10 meters. How much work does she do?  
Work = Force X Distance  
Work = 20N X 10m  
Work = 200 J
- 2) How much work does an elephant do while moving a circus wagon 20 meters with a pulling force of 200N?  
Work = Force X Distance  
Work = 200N X 20m  
Work = 4000 J
- 3) A 900N mountain climber scales a 100m cliff. How much work is done by the mountain climber?  
Work = Force X Distance  
Work = 900N X 100m  
Work = 90,000 J
- 4) Shawn uses 45N of force to stop the cart 1 meter from running his foot over. How much work does he do?  
Work = Force X Distance  
Work = 45N X 1m  
Work = 45 J
- 5) How much work is done when a force of 33N pulls a wagon 13 meters?  
Work = Force X Distance  
Work = 33N X 13m  
Work = 429 J
- 6) How much work is required to pull a sled 5 meters if you use 60N of force?  
Work = Force X Distance  
Work = 60N X 5m  
Work = 300 J
- 7) Tommy does 15 Joules of work to push the pencil over 1 meter. How much force did he use?  
Force = Work / Distance  
Force = 15 J / 1 m  
Force = 15 N
- 8) Angela uses a force of 25 Newtons to lift her grocery bag while doing 50 Joules of work. How far did she lift the grocery bags?  
Distance = Work / Force  
Distance = 50 J / 25 N  
Distance = 2 m
- 9) The baseball player does 1234 Joules of work when hitting a baseball into left field. Assuming the baseball landed 100 meters away from home plate, how much force did the player use to hit the ball?  
Force = Work / Distance  
Force = 1234 J / 100 m  
Force = 12.34 N