

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

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

## Physics: Work - Homework

### Conceptual Questions

1. Consider, in what ways is the word 'work' as used in everyday language the same as the physics definition of work? In what ways is it different?
  
  
  
  
  
  
  
  
  
  
2. The angle theta ( $\theta$ ) in the formula for work is between what two things?

### Mathematics Questions

#### Work

3. How much work is required to pull a sled 5 meters if you use 60N of force directed upwards by  $24.0^\circ$ ?
  
  
  
  
  
  
  
  
  
  
4. What is the maximum amount of work that can be done when a force of 33N pulls a wagon 13 meters?
  
  
  
  
  
  
  
  
  
  
5. You have just arrived at the airport after a long flight. You get your suitcase and begin to drag it 45.0 m through the parking lot. You pull on the strap making an angle of  $35.0^\circ$  with respect to the ground. Overall, 6950 J of work was done by your force. How much force did you use?

#### Power

6. Find the power of a man who pushes the box 8.0 m horizontally with a force of 15 N in 6.0 seconds.