CP Physics: Name: _____

Work, Power, Horsepower Wkst IV / 56 Period: _____

Directions: SHOW ALL OF YOUR WORK, INCLUDING STEPS TO SOLVE EACH PROBLEM.

Formula's:

$$\text{Work} = F \times D \qquad \text{Power} = \frac{\text{Work}}{\text{Time}} = \frac{F \times D}{t} = F \times \text{Velocity}$$

gravity = 9.8 m/s^2 or 10 m/s^2 (if rounded) HP = 746 N m /sec

1. Solve for the unknown in each of the below problems. 2 pts. each

W = ? F = 20 N D = 2 m	W = ? F = 100 N D = 15 m	W = ? F = 50 N D = 5 m	W = ? F = 200 N D = O m

2. Solve for the unknown in each of the below problems. 2 pts. each

W = 100 J F = ? D = 25 m	W = 500 J F = ? D = 2 m	W = 1500 J F = ? D = 5 m	W = 1200 J F = ? D = 40 m

3. Solve for the unknown in each of the below problems. 2 pts. each

W = 100 J F = 10 N D = ?	W = 50 J F = 5 N D = ?	W = 2000 J F = 40 N D = ?	W = 1600 J F = 50 N D = ?

4. Solve for the unknown in each of the below problems. 2 pts. each

P = 500 W W = 100 J t = ?	P = 1000 W W = 50 J t = ?	P = 5000 W W = 2500 J t = ?	P = 50 W W = 10 J t = ?

5. Solve for the unknown in each of the below problems. 2 pts. each

P = 800 W W = ? t = 20 sec	P = 1200 W W = ? t = 3 sec	P = 200 W W = ? t = 40 sec	P = 60 W W = ? t = 60 sec

6. Solve for the unknown in each of the below problems. 2 pts. each

P = 500 W F = 40 N D = 25 m t = ?	P = 100 W F = ? D = 2 m t = 10 sec	P = 600 W F = 100 N D = ? t = 5 sec	P = ? F = 60 N D = 40 m t = 30 sec

7. Convert each answer in #6 into Horsepower. 2 pts. each
