Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Physics 11

**Worksheet 7.6**

**Efficiency**

1. If a 100 W motor has an efficiency of 82%, how long will it take to lift a 50 kg object to a height of 8 m?

1. A 955 kg car is accelerated uniformly from rest to 16 m/s while moving 18 m across a level surface. If the car uses 125 kW of power, what is the efficiency of the car?

1. A lever is used to lift a 50 kg object 10 cm. To do this, a downward force of 75 N is applied to the other end, which displaces 0.9 m down. Find the efficiency of the lever.

1. An 850 kg elevator is pulled up at a constant velocity of 2 m/s by a 22 kW motor. Calculate the efficiency of the motor.

Answers: 1) 48 s 2) 43% 3) 72.6% 4) 75.7%