Work and Power Worksheet

Answer each question by calculating for the missing variable.

***Be sure to show all calculation work in the space provided.***

***Please circle your final answer***

1. You must exert a force of 4.5 N on a book to slide it across a table. If you do 2.7 J

of work in the process, how far have you moved the book?

2. A child pulls a sled up a snow-covered hill. The child does 405 J of work on the

sled. If the child walks 15 m up the hill, how large of a force must the child exert?

3. How much work is done on a small car if a 3150 N force is exerted to move it

75.5 m to the side of the road?

4. A crate is being lifted into a truck. If it is moved with a 2470 N force and 3650 J

of work is done, then how far is the crate being lifted?

5. If 16,700 J of work is done to shoot the human cannonball down a 3.05 m barrel,

then how much force is applied to the person to fire them out the cannon?

6. An elephant pushes with 2000 N on a load of trees. It then pushes these trees for

150 m. How much work did the elephant do?

7. An 190,000 W engine can accelerate from rest to a top speed in 9 s. How much

work did the engine do?

8. Another engine reaches its top speed from rest in 7.5 s. It is able to perform

250,000 J of wok in that time. How much power does this engine have in that

time?

9. If a runner exerts 350 J of work to make 125 W of power, then how long did it

take the runner to do the work?