

Reflection and Self-Assessment

Part 1: Circle the statement that best describes how you completed the practice:

- I answered all questions without using the online solutions. I checked my answers against the key at the back of the practice and was able to determine my mistakes and correct them without referring to the online solutions.
- I answered most questions correctly without using the online solutions. I used the online solutions to help me with some questions and was able, with help from the online solutions, to understand every question and answer them correctly.
- I used the online solutions to help me with most of the questions. I was able, with help from the online solutions, to understand each question and answer them correctly.
- Even using the online solutions, I was not able to fully understand the solution to some problems. The questions I had trouble with were:

- I did not attempt all the questions on the practice.

Part 2: Circle the statement that best describes your confidence in answering questions of this type in the future.

- I am confident I can answer nearly any question of this type correctly without using notes or other assistance.
- I am confident I can answer **MOST** questions of this type correctly without using notes or other assistance.
- I am **NOT** confident I can answer most questions of this type correctly without using notes or other assistance.

Part 3: Circle the statement below that best describes the total amount of time you spent actively working on this practice:

- | | | | | |
|-------------------|---------------------------|-----------------------------|------------------------------|----------------------|
| Less than an hour | Between one and two hours | Between two and three hours | Between three and four hours | More than four hours |
|-------------------|---------------------------|-----------------------------|------------------------------|----------------------|

Efficiency Practice

Name: _____

1. A lightbulb takes in 62 J of electric energy and outputs 24 J of light energy. What is the efficiency of the lightbulb?
2. How long will it take a 25.0 W motor with an efficiency of 65% to do 6 000 J of work?
3. A 5.00×10^3 W electric motor lifts a 200.0 kg object 5.00 m in 3.50 s. What is the efficiency of the motor?
4. If a 125 W motor has an efficiency of 82%, how long will it take to lift a 50.0 kg object to a height of 8.00 m?

Efficiency Practice

Name: _____

8. A motor is 64% efficient, how much energy does it use to move a 1300 kg car at a constant velocity of 22 m/s a distance of 750m over a surface with force of friction of 2500 N.

9. A motor uses 1260 J of energy to lift a 25 kg object to a height of 3.0m. What is the efficiency of the motor?

Efficiency Practice

Name: _____

10. A 955.0 kg car is accelerated uniformly from rest to 16.0 m/s while moving 18.0 m across a level surface with negligible friction. If the car uses 125 000 W of power, what is the efficiency of the car?

Answer Key

1) 39%	2) 370 sec	3) 56%	4) 38 sec	5) 83%
6) 89%	7) 460 sec	8) 2.9×10^6 J	9) 58%	10) 43%

Efficiency Practice

Name: _____