

Question 1

Various electric motors produce energy over various intervals as listed below.

| Instant | Energy | Time |
|----------------|---------------|-------------|
| Motor A | 300 J | 30 s |
| Motor B | 500 J | 50 s |
| Motor C | 500 J | 25 s |

Which of the following best represents the ranking of the powers produced?

1. A larger, B and C equal.
2. B and C equal, A smaller.
3. C largest, B middle, A smallest.
4. A and B equal, C smaller.
5. C larger, A and B equal.

Question 2

Two colored light bulbs have different power ratings. The red bulb is on for 20 minutes and the blue bulb for 10 minutes.

Red: 100 W

Blue: 200 W



Which of the following is true?

1. The total energy produced by the red is the same as the blue.
2. The total energy produced by the red is half that of the blue.
3. The total energy produced by the red is a quarter that of the blue.
4. The total energy produced by the red is twice that of the blue.
5. The total energy produced by the red is four times that of the blue.