Work, Power & Simple Machines

Sci F

Name_____ Class_____ Date_____

1 Lawn mower A mows the lawn in **30 minutes**. Lawn mower B mows the same lawn in **15 minutes**. Which mower does **more work**?

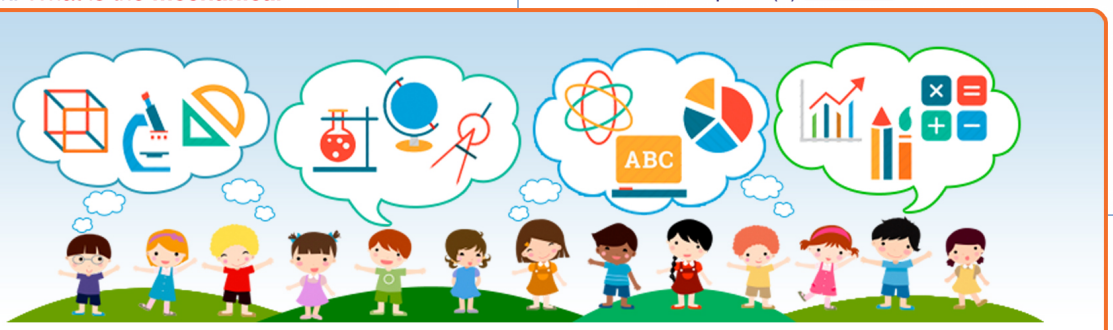
A Mower A
B Mower B
C They do the same amount of work.
D Neither is doing work.

2 The **fixed pulley** on a flagpole makes work **easier** by _____.

A changing the direction of work input
B decreasing the work input
C increasing the work output
D increasing the mechanical advantage

3 You do **5,000 joules** of work during a bike ride and the bike does **4,500 joules** of work. What is the **mechanical**

4 In the diagram below, a worker is pushing a barrel up a **ramp**. Another name for this ramp is a(n) _____.

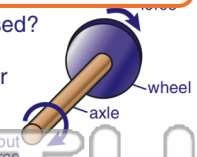


5

7 to calculate the mechanical advantage of this simple machine?

A length of the axle and width of the wheel
B length of the axle and weight of the wheel
C radius of the axle and thickness of the wheel
D radius of both the wheel and axle

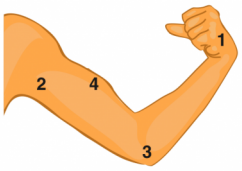
shown below be increased?



A increase the diameter of the axle
B increase the length of the axle
C increase the diameter of the wheel
D increase the mass of the wheel

9 Knowing that an arm is a type of lever, determine where the **fulcrum** is in the picture of the arm below.

A 1
B 2
C 3
D 4



10 A pulley system has 50% work **efficiency**. If the work put in is 100 joules, the amount of work done by the system is _____.

$$\text{efficiency} = \frac{\text{work output x 100}}{\text{work input}}$$

A 100 joules
B 200 joules
C 75 joules
D 50 joules

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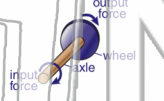

D

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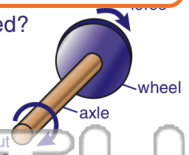

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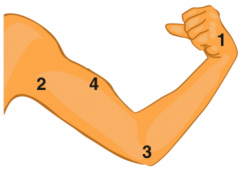

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