Name_____ Class_____ Date_____

1 A wheelbarrow is a type of **lever**. What **class** of lever is it?

A first class
B second class
C third class
D fourth class

2 Which combination of actions would **improve** the **efficiency** of a machine?

A increase work input and decrease work output
B decrease both work input and work output
C decrease work input and maintain work output
D increase work input and work output

3 A ramp is a form of inclined plane that **decreases work input** to move objects up and forward. Determine the **mechanical**
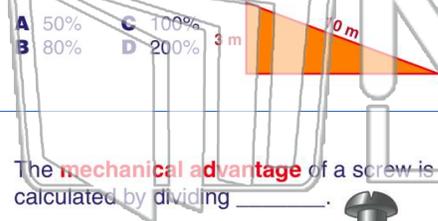
4 If someone is using an inclined plane, it is usually easier to lengthen the ramp than it is to decrease the height. Using the

5

7 making the work input 250 joules. **Multiply** the weight of the person and wheelchair, 50 newtons, by the height of the ramp, 4 meters, to find the work output. Then take that work output divided by work input to find the **efficiency** of the ramp.

A 50%   C 100%
B 80%   D 200%

3 m   0 m

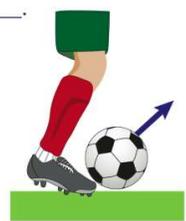is being used in the picture?

A lever
B pulley
C wedge
D screw

9 The **mechanical advantage** of a screw is calculated by dividing _____.

A the length around the threads by the length of the screw
B the length of the screw by the number of threads
C the diameter of the screw by its length
D the width of the screw by its mass

10 In the picture below, the boy is using his **leg** as a(n) _____.
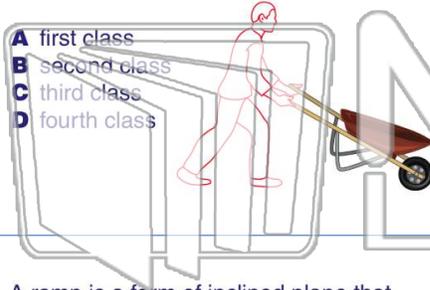
A wedge
B axle
C inclined plane
D lever

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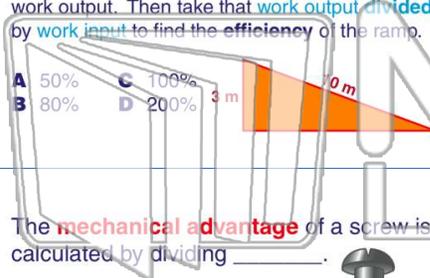
D

5

B

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7 making the work input 250 joules. **Multiply** the weight of the person and wheelchair, 50 newtons, by the height of the ramp, 4 meters, to find the work output. Then take that work output divided by work input to find the **efficiency** of the ramp.

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3 m   0 m

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