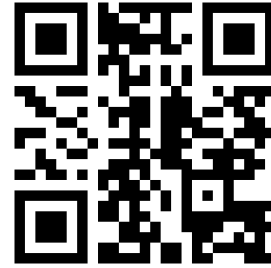


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Science Topical Test

2. Match

Please match the picture with the box.
You can use the pencil



1st Class



2nd Class



3rd Class

1. Identity

Full Name :

Class :

3. Find MA



MA =



MA =

4. ANSWER QUESTIONS

1. A load is being pushed onto an open container car with 1500 N force. If the height of the car is 80 cm from the ground and the length of the inclined plane is 2.4 m, then determine:

- The mechanical advantage of the inclined plane
- The weight of the load

Data :

Process :

A. $MA = \frac{\text{input}}{\text{output}} = \frac{\text{output}}{\text{input}} = \text{input}$

B. $\text{input} = \text{output} \times \text{input} = \text{output} \times \text{input}$
 $= \text{output}$



4. ANSWER QUESTIONS

2. a. Look at the picture! this simple machine is inbalance condition; calculate:

A. Mechanical Advantage of the system

B. Mass of the load. (Estimate the gravitational strength is 10 N/kg)

Data :

[] [] [] []

Process :

A. $MA = \frac{\text{[]}}{\text{[]}} = \frac{\text{[]}}{\text{[]}}$

B. $\text{[]} = \text{[]} \times \text{[]} = \text{[]} \times \text{[]}$
 $= \text{[]}$

4. ANSWER QUESTIONS

2. b. Using the weight of the load in 5a, the distance between fulcrum and load is three times longer, and the force given is 500 N, and then calculates:

A. The distance between fulcrum and the effort

B. The total length of the lever

Data :

[] [] []

Process :

A. $\text{[]} \times W = L_f \times \text{[]}$

$L_f = \frac{\text{[]} \times \text{[]}}{\text{[]}} = \text{[]}$

B. $\text{[]} = \text{[]} + \text{[]} = \text{[]}$