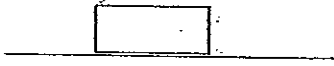


Force diagram worksheet

A. Draw force diagrams for the following.

B. Calculate the unknown values.

1a. Object is at rest



1b. The block has mass of 5 kg.

a. Find the block's weight.

b. Find the block's normal force.

2a. Object moving at a constant velocity.

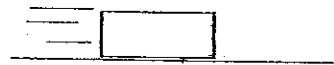


2b. The block has mass of 3 kg.

a. Find the force of earth on the block

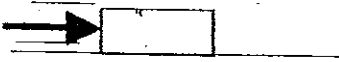
b. Find the block's normal force.

3a. Object slowing down due to friction.



3b. Is the block moving at constant velocity or is it accelerating?

4a. Object being pushed at a constant velocity.

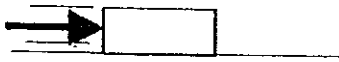


4b. The 20 kg block is being pushed with 50 N of force.

a. Find the Frictional force.

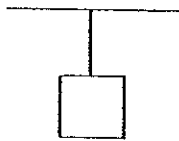
b. Find the weight of the block.

5a. Object being pushed without friction.



5b. Once the object is moving, how much force is needed to keep it moving?

6a. Object is suspended from the ceiling by a string.



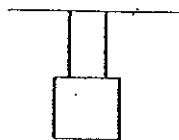
6b. The block weighs 68.6 N.

a. What is the block's mass?

b. What is the normal force on the block?

c. What is the tension in the string?

7a. Object is suspended from the ceiling by 2 strings.



7b. The block has a mass of 6 kg.

a. What is the block's weight?

b. How much tension is in each string?