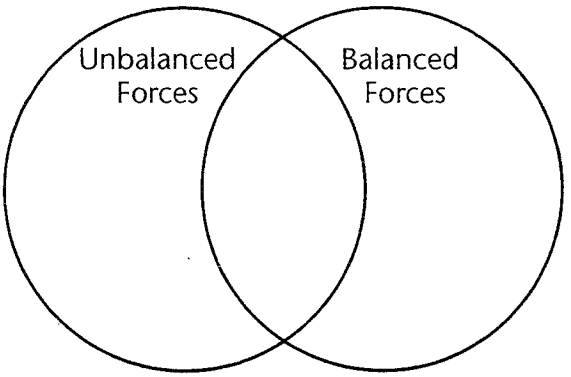
The Nature of Force

Understanding Main Ideas

Write the phrases listed below in the Venn diagram. Write the characteristics shared by unbalanced and balanced forces in the area of overlap.

change an object's motion
do not change an object's motion
net force = 0
push or pull
have direction
net force not = 0

1.



Answer the following question in the space below.

2. Describe how to combine unequal forces acting in opposite directions.

_____

_____

_____

Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

____ 3. newton
____ 4. force
____ 5. unbalanced forces
____ 6. balanced forces
____ 7. net force

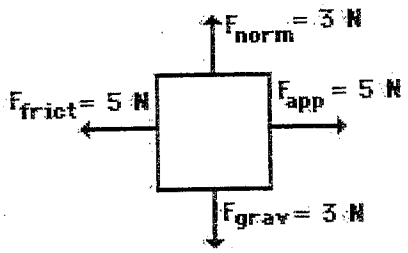
a. the SI unit for force
b. sum of all forces acting on an object
c. push or pull
d. can change an object's motion
e. will not change an object's motion

Name: _____ Date: _____ Hour: _____

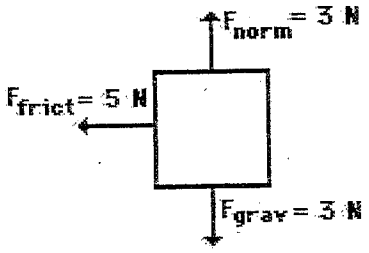
Determining Net Force

Determine the Net Force in each situation below:

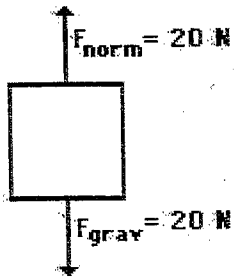
Situation A



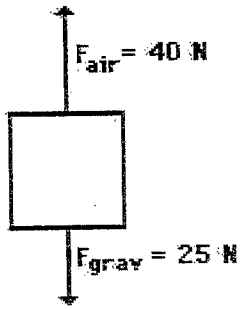
Situation B



Situation C



Situation D

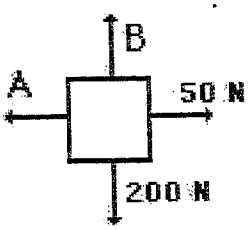


Now solve for the letters shown, given the information provided:

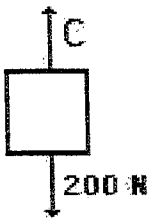
A: _____ C: _____ D: _____ F: _____

B: _____ E: _____ G: _____

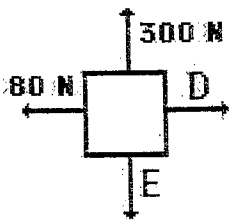
H: _____



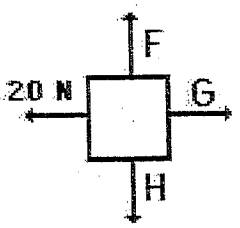
F_{net} = 0 N



F_{net} = 900 N, up



F_{net} = 60 N, left



F_{net} = 30 N, right