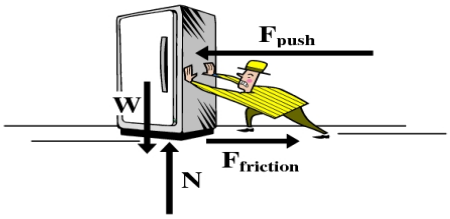
Name _____

Balanced and Unbalanced Forces Worksheet

Examine the forces acting on the freezer in the diagram and answer questions 1 – 3.



1. Are any of the forces acting on the freezer balanced?

   If so, which ones?

2. Are any of the forces acting on the freezer unbalanced?

   If so, which ones?

3. Describe the motion of the freezer.

4. Two men of equal strength have a tug-of-war. Draw the forces that are acting onto the picture.

Which man will win the tug-of-war? **Left** or **Right**

5. Another man joins each end of the rope. Does this affect the result of the tug-of-war? If not, why not? _____

_____

6. Another man joins the team on the left. Which team will win the tug-of-war now? Why?

_____

_____

In the picture for Question 6 above, each man pulls with a force of 10 Newtons.

7. How much force do the team on the left pull with? _____ Newtons
8. How much force do the team on the right pull with? _____ Newtons

9. Explain the result of the tug-of-war using the values for the forces in each team.