

Name: _____

Aim 12: Forces

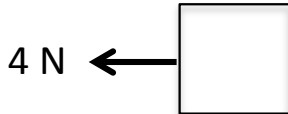
Date: _____

Net Force Worksheet

The force that results from all the combined forces acting on the object is called the **net force**. Calculate the net force acting on the box in the following problems.

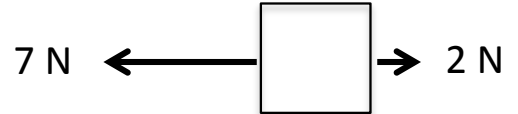
Be sure to include the direction of the net force (left or right)!

1.



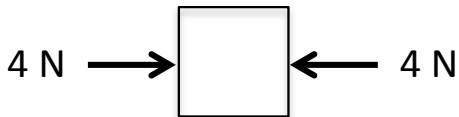
Net Force:

2.



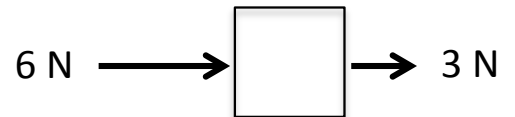
Net Force:

3.



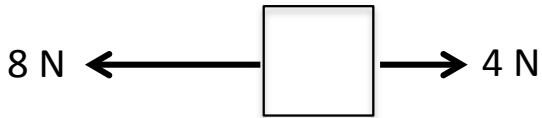
Net Force:

4.



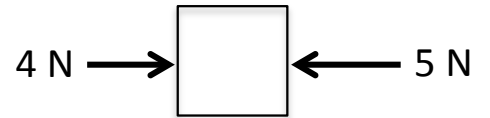
Net Force:

5.



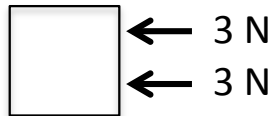
Net Force:

6.



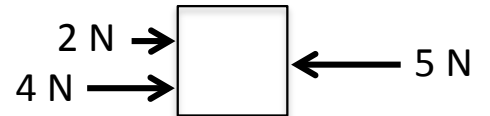
Net Force:

7.



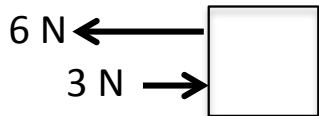
Net Force:

8.



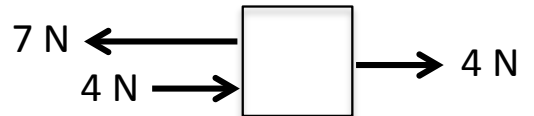
Net Force:

9.



Net Force:

10.



Net Force:

11. What is net force?

Show your work on problems 12-14 *Draw a diagram for each scenario and solve*

12. A boy pulls a wagon with a force of 6 N east as another boy pushes it with a force of 4 N east. What is the net force?

13. Mr. Smith and his wife were trying to move their new chair. Mr. Smith pulls with a force of 30 N while Mrs. Smith pushes with a force of 25 N in the same direction. What is the net force?

14. The classes are playing tug of war. Mrs. Larson's homeroom pulls with a force of 50 N. Ms. Mitko's homeroom pulls with a force of 45 N in the opposite direction. What is the net force? And who won?

15. What is a balanced force?

16. What is an unbalanced force?

17. Draw a picture below that shows an example of a balanced force (examples: a bird's nest in a tree, a hat on a person's head, or a light hanging from a ceiling). Show the forces acting on the object. In a separate picture show what would happen to the object if the forces became unbalanced.