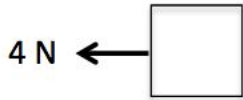


Name _____ Date _____ Per _____

Net Forces WS

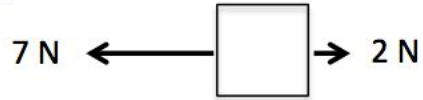
The force that results from all the combined forces acting on the object is called the **net force**. If the **net forces are acting in the same direction, the net force is the sum of the forces**. If the **forces are acting in opposite directions, the net force is the difference in the strengths**. **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.



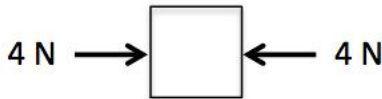
Net Force:

2.



Net Force:

3.



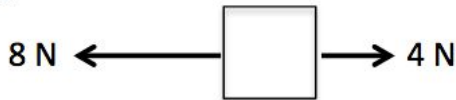
Net Force:

4.



Net Force:

5.



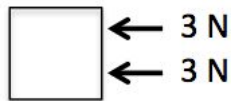
Net Force:

6.



Net Force:

7.



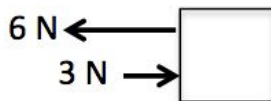
Net Force:

8.



Net Force:

9.



Net Force:

10.



Net Force:

Show your work on problems 11-13

11. 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 and in what direction is it going?**

12. 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?**

13. Classes are playing tug of war. Mrs. Jaehnig's homeroom pulls with a force of 50 N. Ms. Sacchetti's homeroom pulls with a force of 45 N in the opposite direction. **What is the net force? And, who won?**

14. What is a balanced force?

15. What is an unbalanced force?

16.

a.) Draw a picture below that shows an example of a balanced force. Show the forces acting on the object.

b.) In a separate picture, show what would happen to the object if the forces became unbalanced.