Science 8 Name: _____

Forces Date: _____

Forces

1. A force is _____
2. Two forces acting in the same direction will _____
3. Two forces acting in opposite directions also _____ , but you must pay attention to the direction of each force.
4. Adding two forces in opposite directions is the same as adding a positive number and a _____.
5. For two unequal forces in opposite directions, the result is a smaller force acting _____

   _____.
6. Two equal forces in opposite directions are called _____.
7. Describe how balanced forces would change the motion of an object. _____

   _____.
8. To change the motion of an object requires _____.
9. Use a ruler to construct two forces acting in the same direction. One force should be 5.0 cm and the other should be 7.0 cm. Construct a third arrow showing the result of the addition of the first two forces. Make sure the length and direction of the third arrow reflect the correct summation of the first two forces.

10. Use a ruler to construct two forces acting in opposite directions. One force should be 7.0 cm and the second should be 5.0 cm in the opposite direction. Construct a third arrow showing the result of the addition of the first two forces. Make sure the length and direction of the third arrow reflect the correct summation of the first two forces.

11. Explain why the directions for questions 9 and 10 above required you to make sure both the length and the direction of the arrows reflect the correct summation of the forces.

    _____

    _____

    _____