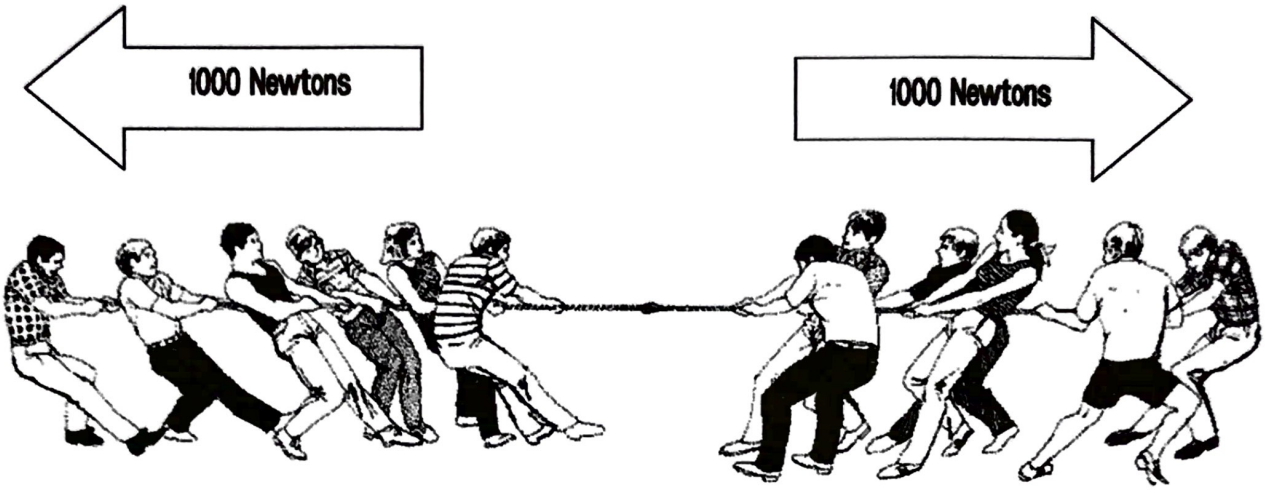
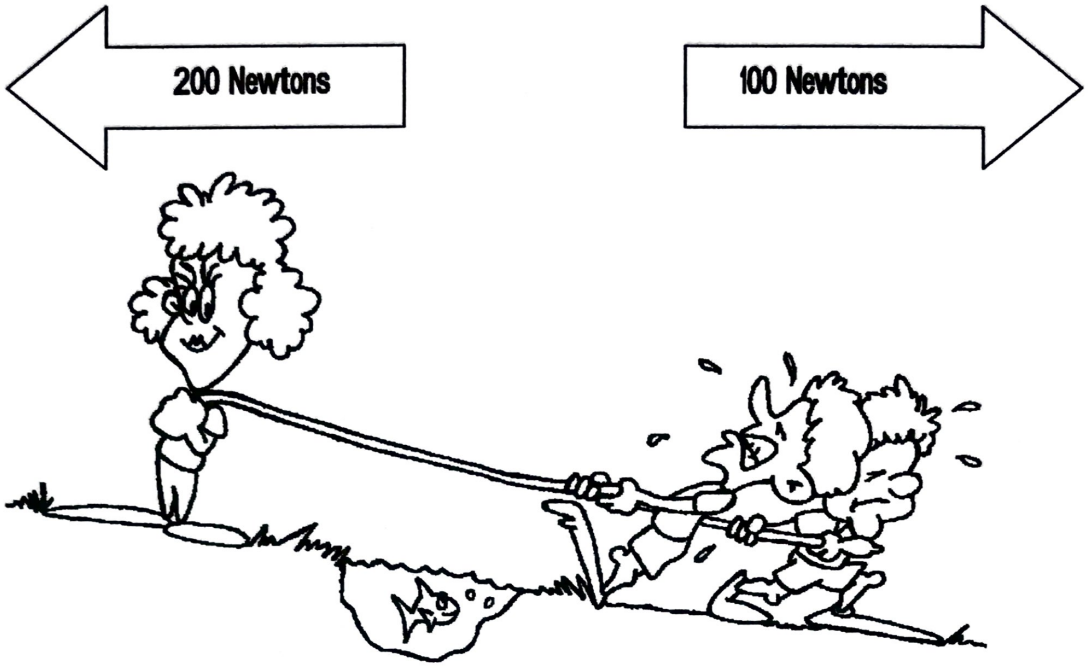
Name : _____

Forces Worksheet 4

Circle the best answer:



1. The forces shown above are PUSHING / PULLING forces.
2. The forces shown above are W ORKING TOGETHER / OPPOSITE FORCES.
3. The forces are EQUAL / NOT EQUAL.
4. The forces DO / DO NOT balance each other.
5. The resultant force is 1000 N TO THE RIGHT / 1000 N TO THE LEFT / ZERO.
6. There IS / IS NO motion.



7. The forces shown above are PUSHING / PULLING forces.

8. The forces shown above are W ORKING TOGETHER / OPPOSITE FORCES.

9. The forces are EQUAL / NOT EQUAL.

10. The forces DO / DO NOT balance each other.

11. The stronger force is pulling to the RIGHT / LEFT.

12. The weaker force is pulling to the RIGHT / LEFT.

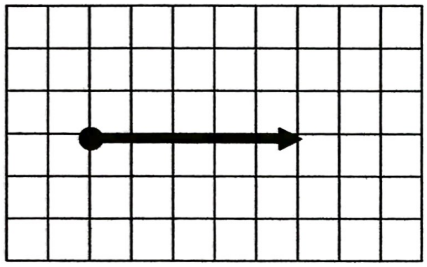
13. Motion is to the RIGHT / LEFT.

SHOW ING FORCES:

A force can be shown with a vector. A vector is a line with an arrow. It begins with a dot.

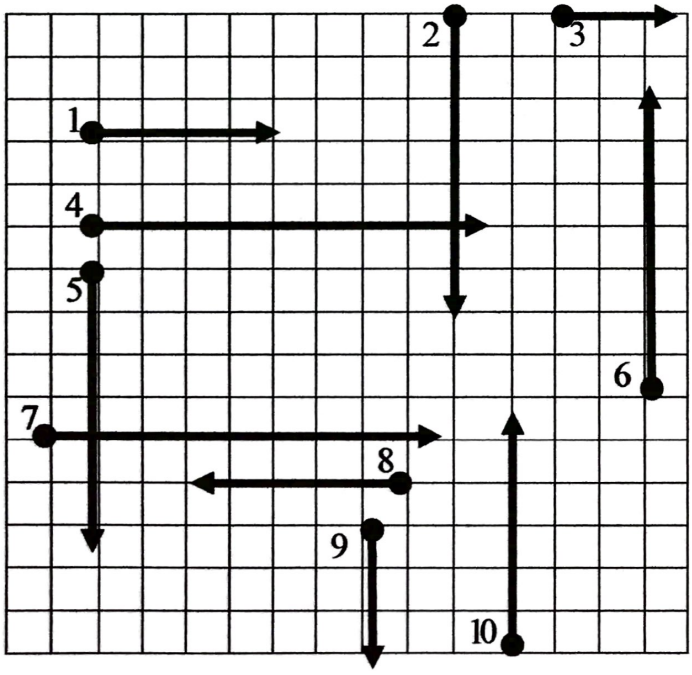
→ The dot shows where the force begins
→ The length of the arrow shows the amount of force
→ The arrows shows the direction of the force

Example:



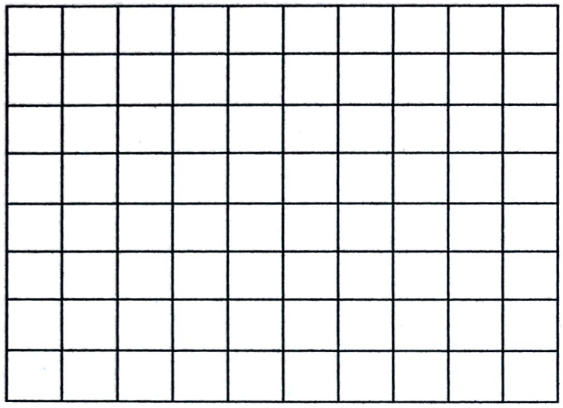
Each square represents force of ONE NEW TON.
This vector shows a 5 n force to the right.

Fill in the chart on the right with the information found in the figure on the left. Each square represents 1 n of force.

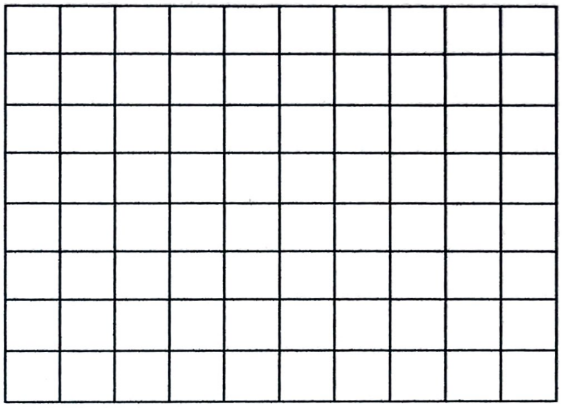


	Force (n)	Direction (right, left, up, down)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

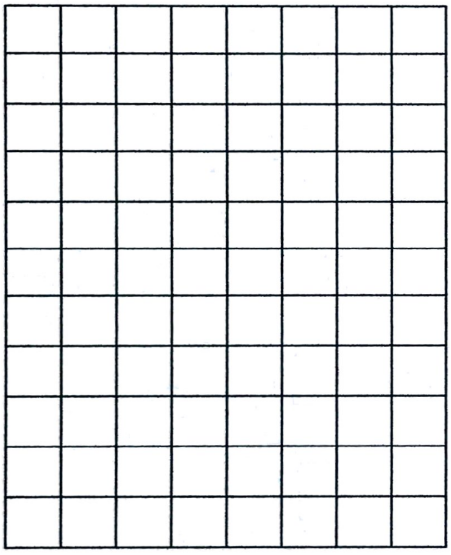
Draw each vector on the chart below. Start at the dot. Each square represents one n of force.



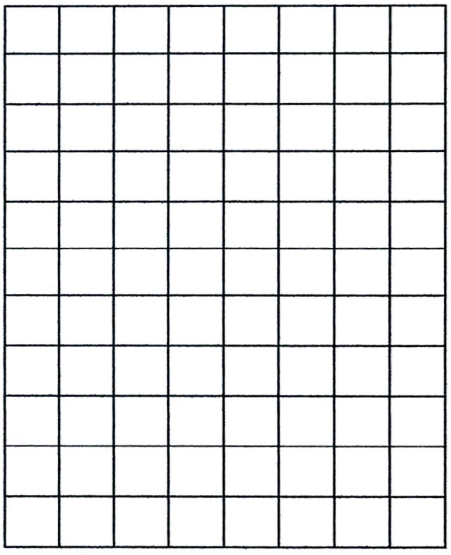
7 n force to the right



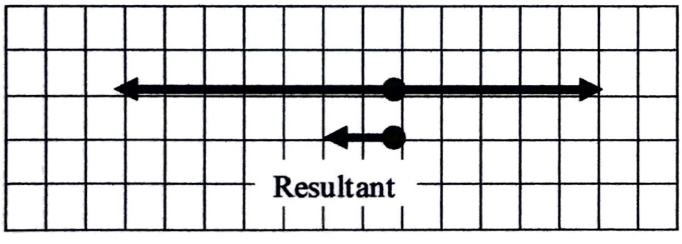
5 n force to the left



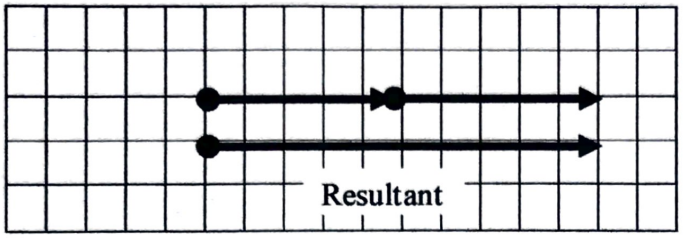
10 n upward force



3 n downward force

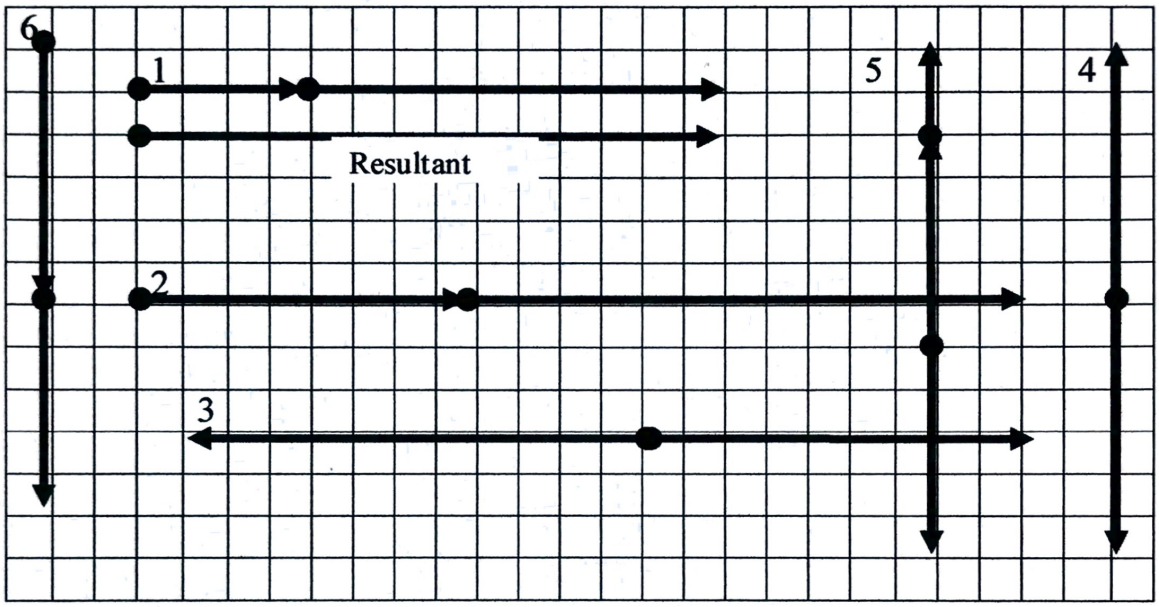


The figure to the left shows two opposite forces.
There is a 5 kg force to the right and a 7 n force to the left. Subtract 5 from 7.
The resultant is a 2 n force to the left.
The resultant vector is shown



This figure shows two forces in the same direction.
They are both 5 n forces.
Add 5 and 5.
The resultant is a 10 n force to the right.

Six sets of vectors are shown below. Draw the resultant vector next to each set. Start at the dot. One has been for you.



Use the above information to fill the chart:

	Total number of forces	Amount of force (n)	Direction (right, left, up, down)	Resultant	Movement? (yes, no)
1					
2					
3					
4					
5					
6					