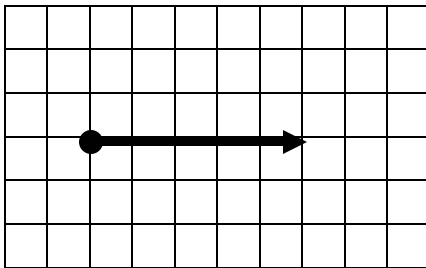


SHOWING FORCES:

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

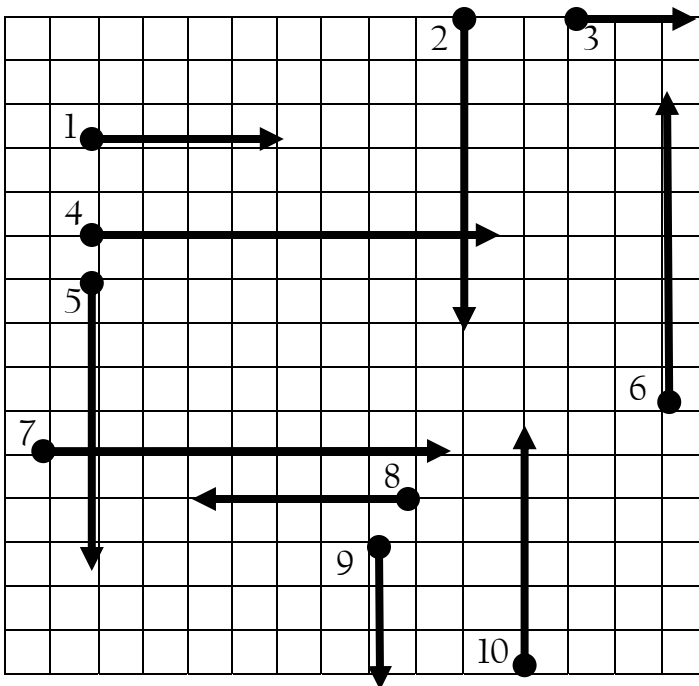
- The dot shows where the force begins
- The length of the arrow shows the amount of force
- The arrows shows the direction of the force

Example:



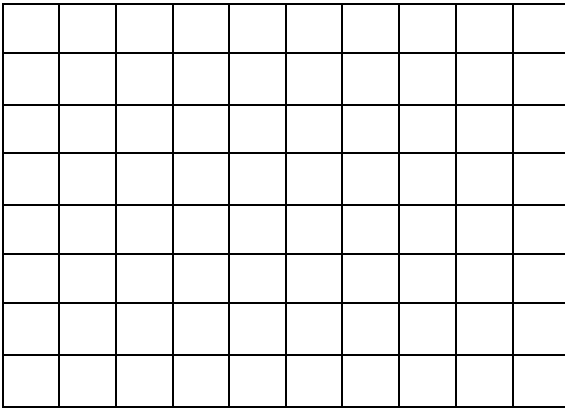
Each square represents force of ONE NEWTON.
This vector shows a 5 n force to the right.

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

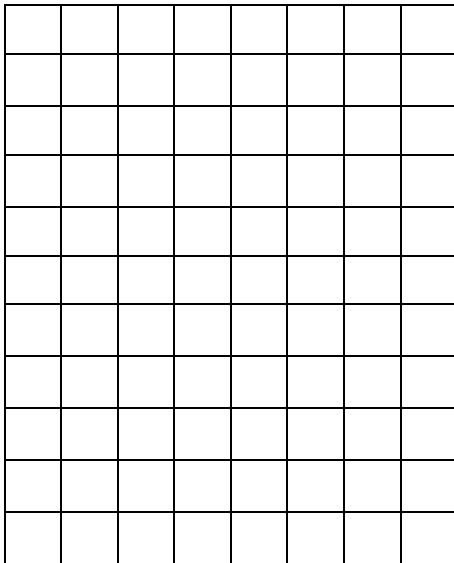


	Force (n)	Direction (right, left, up, down)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

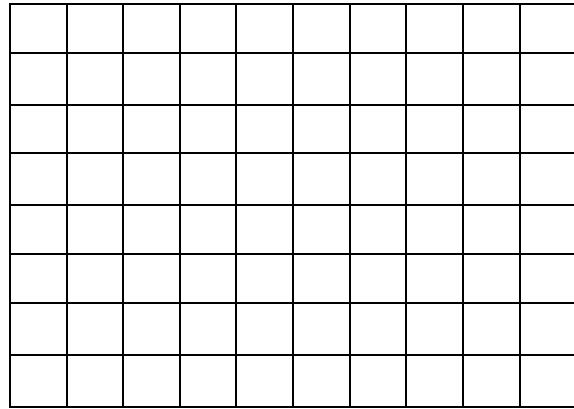
Draw each vector on the chart below. Start at the dot. Each square represents one n of force.



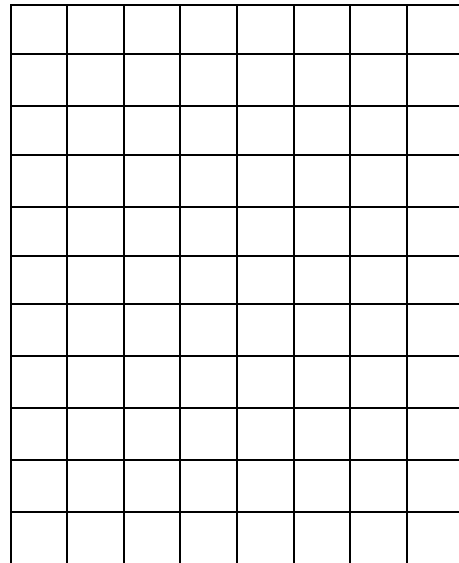
7 n force to the right



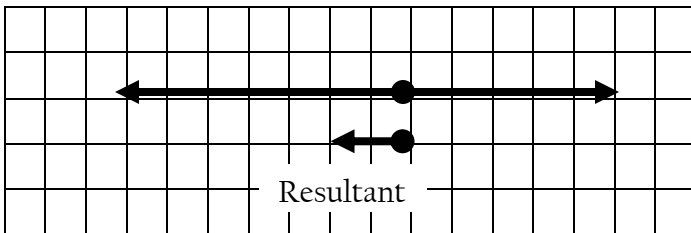
10 n upward force



5 n force to the left



3 n downward force

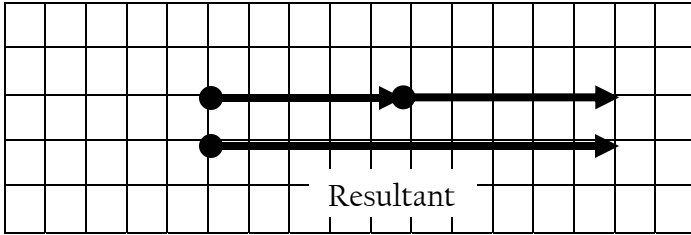


The figure to the left shows two opposite forces.

There is a 5 kg force to the right and a 7 n force to the left. Subtract 5 from 7.

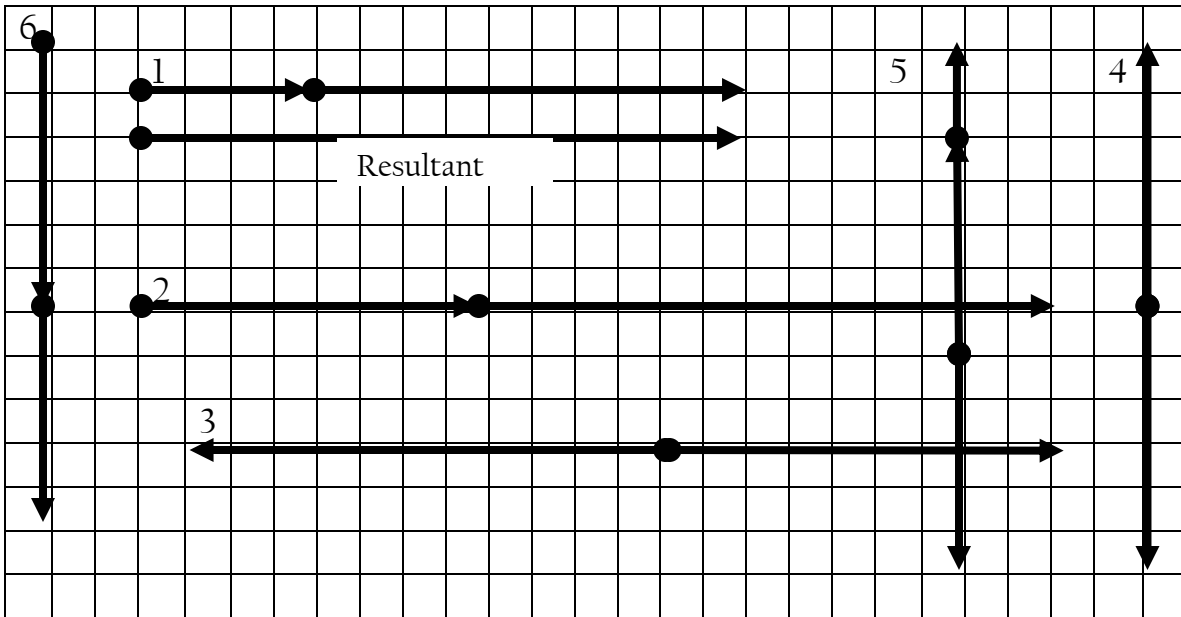
The resultant is a 2 n force to the left.

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					