



## CREATING A MECHANICAL ADVANTAGE

The use of pulleys offers a mechanical advantage by reducing the force required to move a mass. It is therefore possible to double, triple, quadruple or quintuple the capacity of a system by using pulleys. In order to generate a mechanical advantage, at least one pulley must be attached to the load. Here are some examples.

Pulling	Lifting
<b>Without Mechanical Advantage - Direct Line</b>	
<b>Mechanical Advantage x 2</b>	
<b>Mechanical Advantage x 3</b>	
<b>Mechanical Advantage x 4</b>	

In general, each pulley must be fixed to a solid anchoring point using a carabiner and a sling while respecting the appropriate safety factor. Therefore, for each pulley, a carabiner of an appropriate capacity and a sling are required.