

## Contact by Attachment

An attached rod (or beam, stick, etc.) can exert a force in any direction (*i.e.* push, pull, sideways, etc.). An attached rope (or string, chain, etc.) can only pull in the direction of the rope.

The TENSION at a particular location in a pulling object is the magnitude of the third-law pair forces acting at that point in the pulling object.

The word "tension" is also sometimes used to refer to the actual pulling force exerted BY the pulling object.

In a "massless" rope (or string, chain, etc.) the tension is the same at all locations.

A frictionless and massless pulley, or a perfectly slick peg, can change the direction of a pulling rope or string without altering the tension.