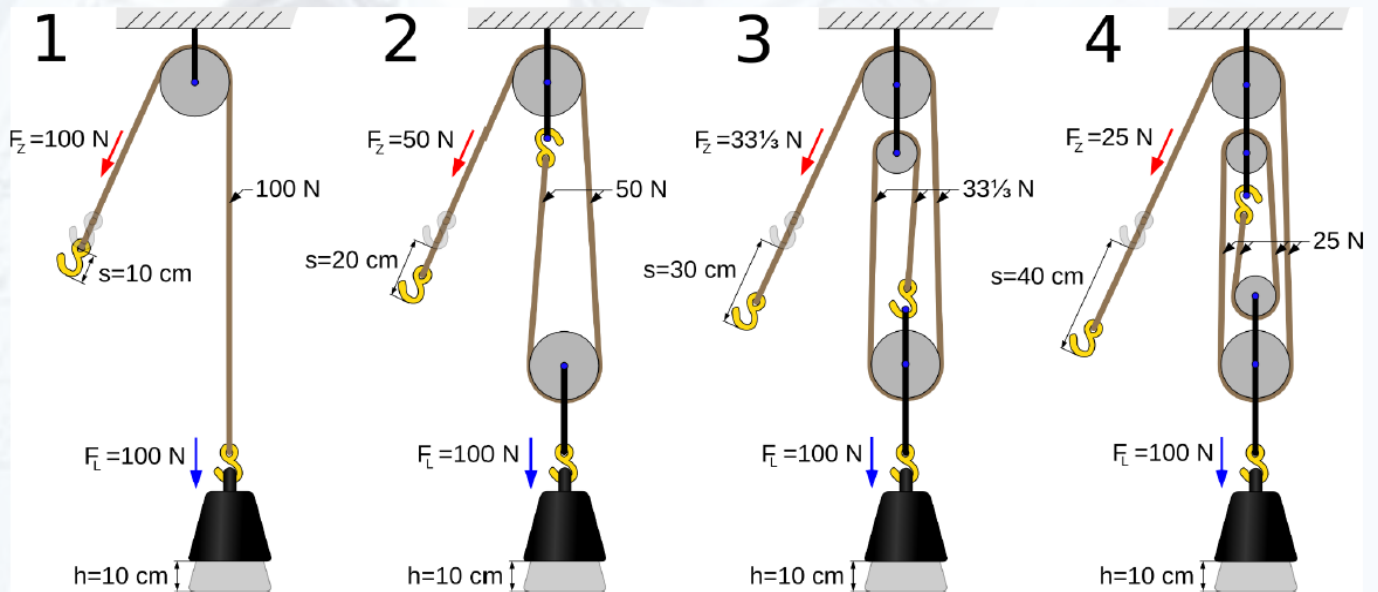


Mechanical concept

Block and Tackle



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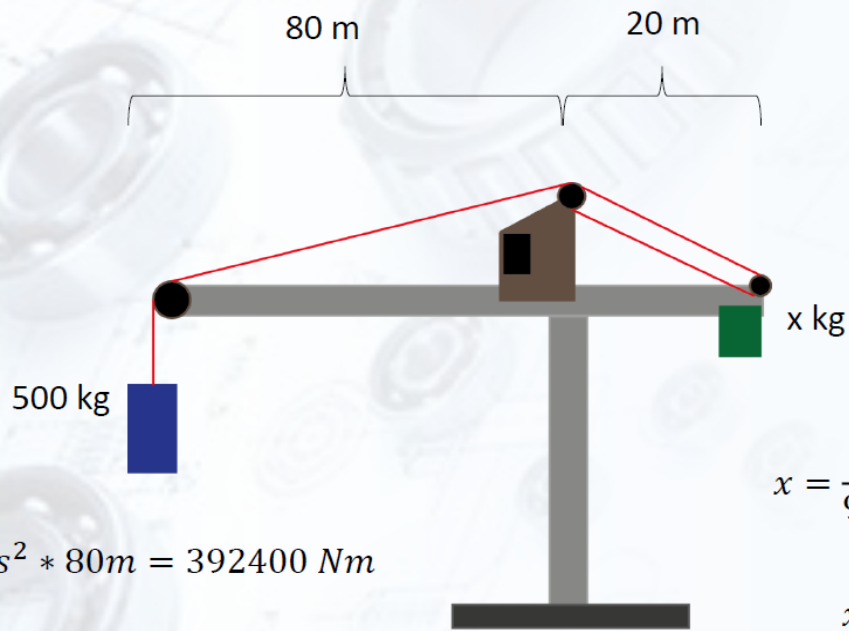


<http://wordpress.mrreid.org/2014/07/16/what-is-the-point-of-a-pulley/>

Mechanical concept example



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$$500kg \times 9.81m/s^2 * 80m = 392400 Nm$$

$$x = \frac{392400 Nm}{9.81m/s^2 * 20 m}$$

$$x = 2000 kg$$

If the hoist can only lift 215 kg, How many pulleys for a block and tackle configuration?

$$\frac{500}{2} = 250 kg \quad \frac{500}{3} = 166.7 kg$$