Pulleys

Changing the direction of a force with a fixed pulley

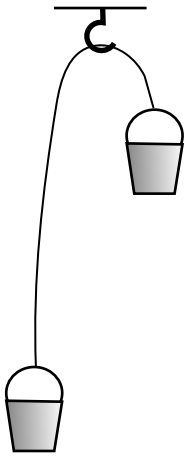
Lift a cup of counters only with another cup of counters.

Count how many counters are in each cup when:

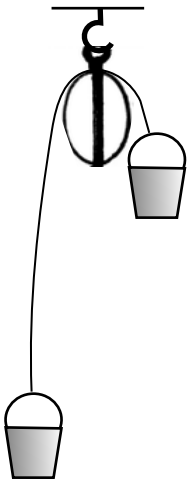
A. The string loops over the hook

B. The string loops over a pulley

How do the results change?



A.



B.

Try pulling small objects across your desk using this pulley system. (Use a longer string)
Take notes on what you find.

The force advantage with moveable pulleys

Add a moveable pulley to make a gun and/or a luff tackle:

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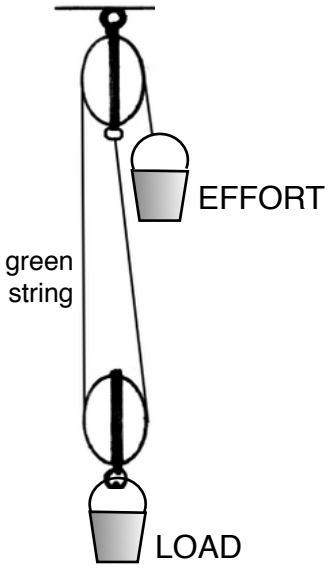
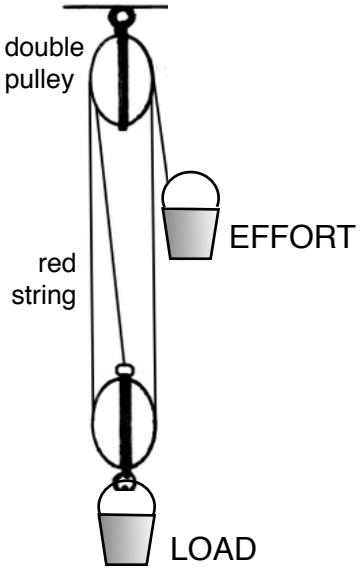
Gun Tackle



Luff Tackle



Record how many counters are needed in the top cup to pull up the bottom cup:

Pulley system (gun or luff)	Counters in bottom cup + pulley weight (2) LOAD	Counters in top cup EFFORT
	_____ + 2 = _____	_____
	_____ + 2 = _____	_____
	_____ + 2 = _____	_____
	_____ + 2 = _____	_____
	_____ + 2 = _____	_____