

Name: _____ Date: _____

Powerful Pulleys: The Power of Mechanical Advantage Activity – Pre-Activity Assessment Worksheet – Answers

1. What is a **pulley**?

A pulley is a simple machine consisting of a wheel around which a rope/string is threaded, changing direction of the string.

2. What is the purpose of using a **pulley**?

A pulley is used to apply mechanical advantage to a mechanical setup.

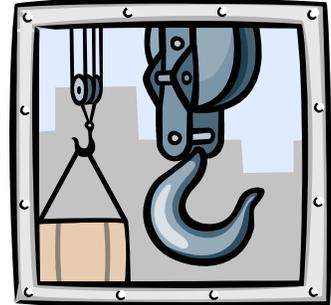
3. And where do you see **pulleys** in everyday life?

Possible answers include: cranes, elevators, theatre curtains (the curtains are raised by a pulley system), wells, exercise systems, flag pole, conveyor belt, washing machine, construction equipment

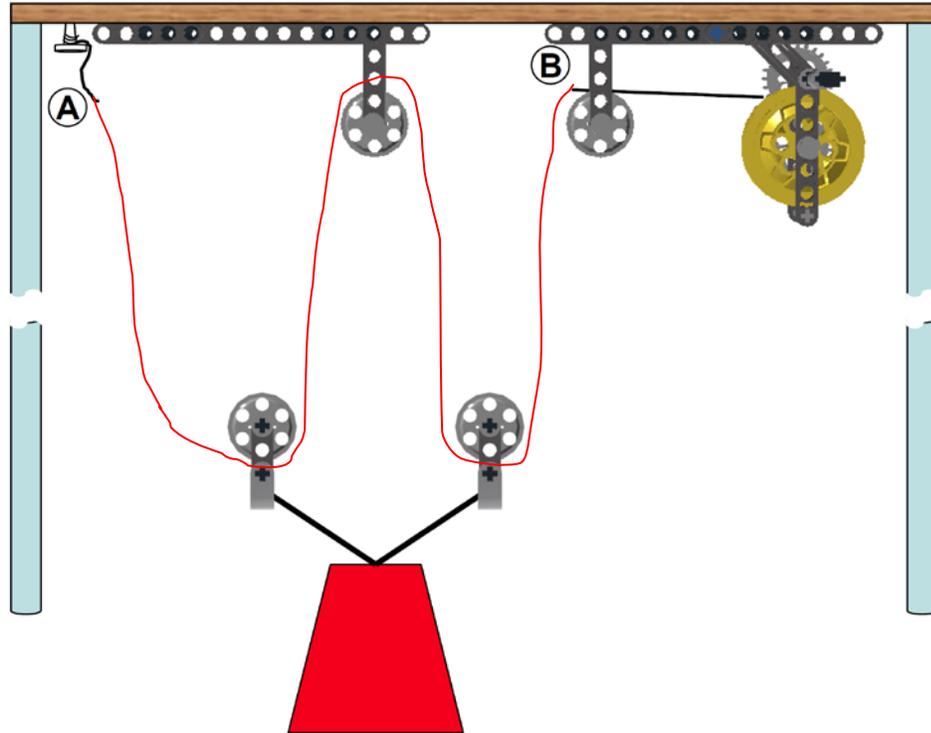
4. What are the two types of **pulleys**?

Fixed pulleys movable pulleys

5. Using the picture on the next/back page, connecting Line (A) with Line (B) by drawing the way you think the line should go through the **pulleys**.



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6. In the above image (and including your filled-in line drawing), describe why the tension is reduced.

Because the load is distributed across all four lines, thusly reducing the tension.