

Mechanical Systems Topic 1 Quiz Review

1. Describe the machine Archimedes invented to move water. (P 260)
2. A screw converts _____ motion to _____ motion as it is driven into wood. (P 264)
3. How many pulleys are needed to change direction of force? (Use google)
4. How many pulleys are needed to increase force? (Use google)
5. If a simple machine is used to increase force, the tradeoff is a loss of _____ (p 268)
6. If a simple machine is used to reduce distance, the tradeoff is a loss of _____ (p 268)
7. Define Linkage and give an example of a linkage in a car, or a linkage in a bicycle (p 272)
8. Describe how a transmission works (p 273)
9. In a gear train, what is the gear called that the human force is applied to?(p 275)
10. In a gear train, what is the gear called that force is transferred to? (p 275)
11. Using a small gear to turn a large gear increases _____, but increases _____. This is called a _____. (p 275)
12. Using a larger gear to turn a smaller gear increases _____, but decreases _____. This is called a _____. (p 275)
13. Use three diagrams to explain where the FULCRUM, LOAD, and EFFORT are in each class of lever