

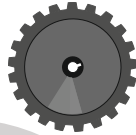
ANSWER ALL THE QUESTIONS  
CLICK THE GEARS FOR HELPFUL LINKS.

# INTRODUCTION TO GEAR AND PULLEY SYSTEMS - KNOWLEDGE MAP

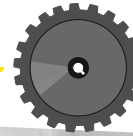
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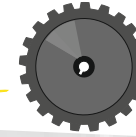
1. SKETCH SPURS GEARS.  
Label and explain -  
driven and driver gears.



2. WHAT IS THE  
PURPOSE OF AN 'IDLER'  
GEAR?  
Include a sketch.



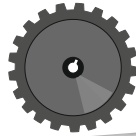
3. WHAT ARE  
COMPOUND GEARS?  
Draw a simple set of  
compound gears.



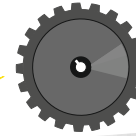
4. WHEN ARE RACK AND  
PINION GEARS VERY  
USEFUL.

Give a practical  
example and  
include an image.

7. HOW DOES GEAR RATIO  
/ VELOCITY RATIO,  
BENEFIT A CYCLIST?

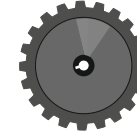


6. DESCRIBE A PRACTICAL  
APPLICATION, OF A SET OF  
BEVEL GEARS. Sketch or  
image required.

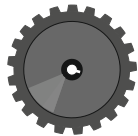


5. HOW IS A RACK AND  
PINION GEAR SYSTEM  
USED ON A PILLAR DRILL?

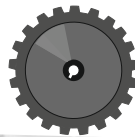
Include a  
diagram or  
paste an image



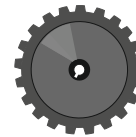
8. SKETCH A SPROCKET  
AND PEDAL GEAR OF A  
BICYCLE.



9. WHAT IS A WORM and  
WORM WHEEL? Include  
a labelled sketch.

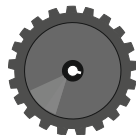


10. PASTE OR DRAW A PULLEY  
SYSTEM BEING USED AS A WINCH.  
Name the driver and driven pulley  
wheels.



11. WHAT IS THE  
PURPOSE OF A KEYED  
SHAFT, REGARDING A  
PULLEY WHEEL?

13. HOW CAN A PULLEY  
SYSTEM BE USED TO LIFT  
A HEAVY WEIGHT?  
Include a sketch.



12. DRAW AN ARRANGEMENT  
OF PULLEYS THAT CAN BE  
USED TO REVERSE THE  
DIRECTION OF ROTATION?

