

## Homework 5 – Gears and Pulleys

### Simple Gear train

Draw down a simple gear train,

Describe how it works

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Name an example. Of where this type of gear would be used

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### Compound Gear train

Draw down a Compound gear train,

Describe how it works

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Name an example. Of where this type of gear would be used

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### Idler Gear

Draw down a gear train that includes an Idler gear

Describe the effect the idler gear has

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Name an example. Of where an idler gear would be used

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# Homework 5 – Gears and Pulleys

## Pulley mechanisms

1, Draw down a simple pulley mechanism

Describe how it works

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Name an example of where it is used.

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2, Pulley wheels are often V shaped, why do you think this is?

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3, Using the equation: Velocity Ratio (VR) = Driven diameter / Driver diameter

Calculate the VR where the Driver pulley has a diameter of 30mm and the Driven has a diameter of 15mm. (show all working) the answer should be a Ratio e.g. 1:3.

4, Calculate the VR where the Driver pulley has a diameter of 60mm and the Driven has a diameter of 10mm (show all working) the answer should be a Ratio e.g. 1:3.

5, Calculate the VR where the Driver pulley has a diameter of 100mm and the Driven has a diameter of 25mm (show all working) the answer could be a Ratio e.g. 1:3.