**St. Machar Academy**

**Homework 4**

**Gear Ratios**

1. In the table below insert all the gear ratios.

|  |  |  |
| --- | --- | --- |
| Number of teeth on Driven Gear | Number of Teeth on Driver Gear | Gear Ratio |
| 60 | 30 |  |
| 100 | 25 |  |
| 50 | 100 |  |
| 30 | 30 |  |
| 60 | 10 |  |
| 10 | 1 |  |

1. Calculate the gear ratio of the compound gears shown below.

**Write your answer on the back of this sheet**

**TOTAL MARKS 7**

**Example for Homework**

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To calculate the gear ratio of the above example:

G.R. = Number of teeth on driven gear

 Number of teeth on driving gear

Between A & B = 40 = 2 Between C & D = 30 = 3

 20 1 10 1

Because B and C are on the same axle then they must be going the same speed

The Gear Ratio between D & A is found by multiplying: 2 x 3 = 6

 1 1 1

Therefore we have a gear ratio of 6:1. Meaning the driven gear D is six times faster than the driver gear A.

**If you only have two gears you only need to do the calculation for A & B**