

# GEAR RATIOS

WORLD ASSOCIATION OF TECHNOLOGY TEACHERS <https://www.facebook.com/groups/254963448192823/> [www.technologystudent.com](http://www.technologystudent.com) © 2017 V.Ryan © 2017

V.Ryan © 2000 - 2017

On behalf of The World Association of Technology Teachers

## W.A.T.T.



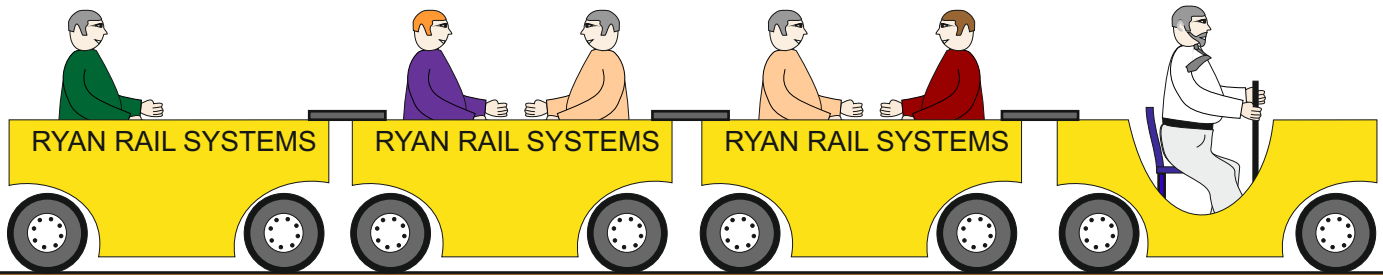
World Association of Technology Teachers

This exercise can be printed and used by teachers and students. It is recommended that you view the website ([www.technologystudent.com](http://www.technologystudent.com)) before attempting the design sheet .

THESE MATERIALS CAN BE PRINTED AND USED BY TEACHERS AND STUDENTS.  
THEY MUST NOT BE EDITED IN ANY WAY OR PLACED ON ANY OTHER MEDIA INCLUDING WEB SITES AND INTRANETS.  
NOT FOR COMMERCIAL USE.  
THIS WORK IS PROTECTED BY COPYRIGHT LAW.  
IT IS ILLEGAL TO DISPLAY THIS WORK ON ANY WEBSITE/MEDIA STORAGE OTHER THAN [www.technologystudent.com](http://www.technologystudent.com)

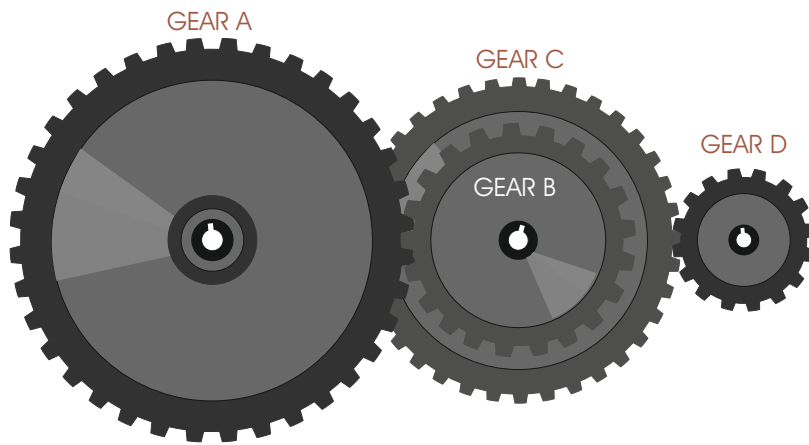
# GEAR RATIOS

A new gear system has been designed as part of the power transmission system for a electric train. This will be used to ferry passengers around the theme park.



The gear system is shown below. What is the name of this type of gear system?

NAME: \_\_\_\_\_



Gear A rotates in a clockwise direction at 30 revs/min. What is the output in revs/min at D and what is the direction of rotation ?

GEAR A	GEAR B	GEAR C	GEAR D
120 teeth	40 teeth	80 teeth	20 teeth

First find revs/min at Gear B.

$$\frac{\text{teeth B}}{\text{teeth A}} =$$

$$\underline{\quad} \text{ rpm} \times \underline{\quad} = \underline{\quad} \text{ rpm / min}$$

REVS/MIN at C = \_\_\_\_\_

Next find revs/min at Gear D.

$$\frac{\text{teeth C}}{\text{teeth D}} =$$

$$\underline{\quad} \text{ rpm (at C)} \times \underline{\quad} = \underline{\quad} \text{ rpm / min}$$

REVS/MIN at D = \_\_\_\_\_

DIRECTION OF ROTATION at D = \_\_\_\_\_