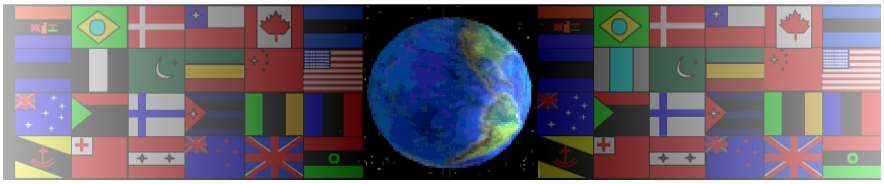
GEAR RATIOS

On behalf of The World Association of Technology Teachers

W.A.T.T.

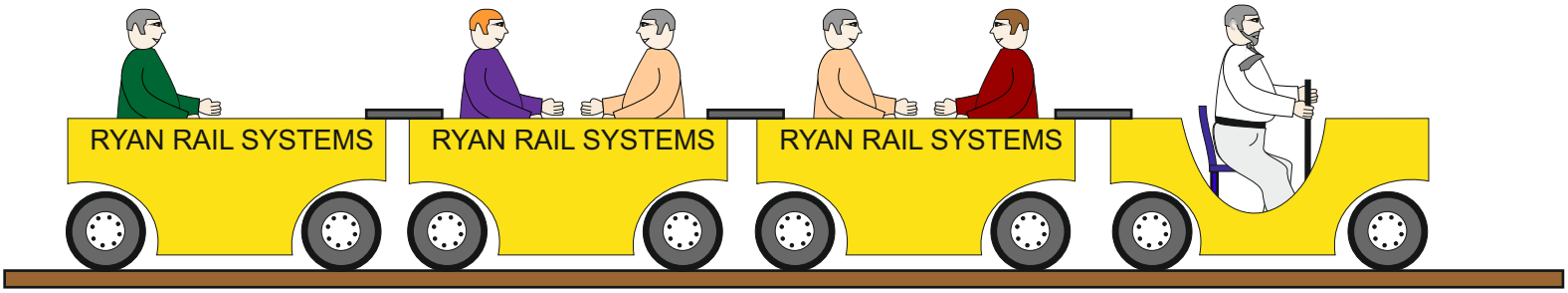


World Association of Technology Teachers

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

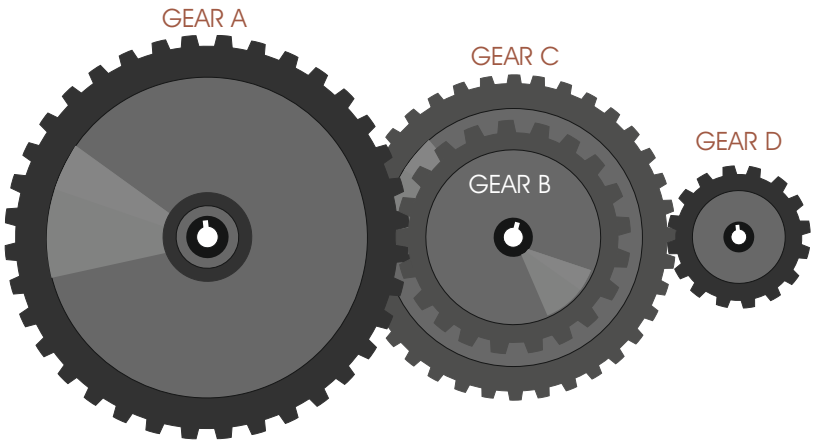
GEAR RATIOS

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.

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

__ rpm X __ = __ rpm / min

REVS/MIN at C = _____

Next find revs/min at Gear D.

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

__ rpm (at C) X _ = ___ rpm / min

REVS/MIN at D = _____

DIRECTION OF ROTATION at D = _____