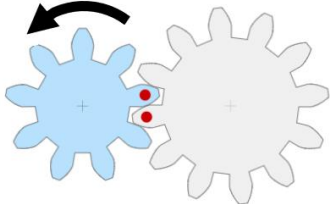


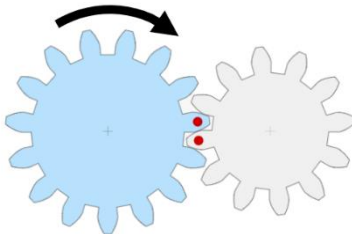
Name: _____ Date: _____

IMPORTANT: the driving wheel is always the one on the left (blue).

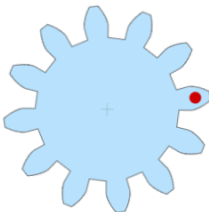
Problem 1: Calculate the gear ratio of the gear, directly counting the number of teeth of each wheel in the drawing and indicate with an arrow the direction of rotation of the right wheel. Note that the driving wheel is the one on the left. **[Solution: 0,75]**



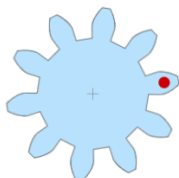
Problem 2: Calculate the gear ratio of the next gear, directly counting the number of teeth of each wheel in the drawing and indicate with an arrow the direction of rotation of the right wheel. Note that the driver wheel is the one on the left. **[Solution: 1,25]**



Problem 3: You want to connect a wheel to the right of the wheel in the drawing in such a way that you get a gear with a 1.5 ratio. Calculate the number of teeth that the wheel should have. **[Solution: 8 teeth]**



Problem 4: You want to connect a wheel to the right of the wheel in the drawing in such a way that the gear ratio is 0,4. Calculate the number of teeth that the wheel should have. **[Solution: 25 teeth]**



Problem 5: In a gear the driving wheel has 15 teeth and the driven wheel has 40 teeth. Calculate the speed of the driven wheel if the driving wheel is rotating at 200rpm. **[Solution: 75 rpm]**

Problem 6: You want the driven wheel of a gear to rotate at 750rpm. It is known that the driving wheel has 60 teeth and the driven wheel 12. How fast will the driving wheel have to turn? **[Solution: 150 rpm]**

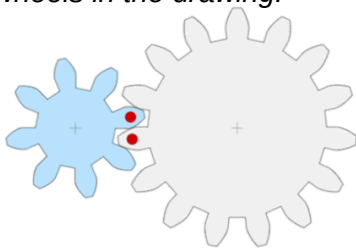
Problem 7: Calculate the number of teeth the driven wheel of a gear should have if:

- We want it to rotate at 30rpm.
- The driving wheel has 8 teeth and rotates at 180rpm. **[Solution: 48 teeth]**

Problem 8: In a gear the driven wheel has 15 teeth and rotates at 420rpm. Calculate how many teeth the driving wheel has if it rotates at 140rpm. **[Solution: 45 teeth]**

Problem 9: Calculate the speed of the driven wheel of the gear in the drawing knowing that the speed of the driving wheel is 120rpm. **[Solution: 64 rpm]**

Note: to calculate the gear ratio you will need to count the number of teeth of the wheels in the drawing.



Problem 10: Calculate the speed of the driving wheel knowing that the speed of the driven wheel is 350rpm. **[Solution: 269,23 rpm]**

Note: to calculate the gear ratio you will need to count the number of teeth of the wheels in the drawing.

