

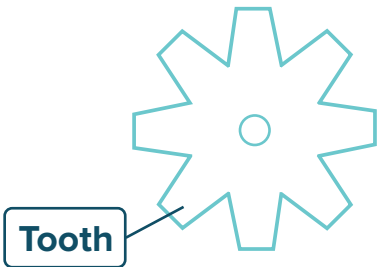


Turbines & Gears Extension

1. Connect **Gear D** and **Gear C**.

How many times do you need to rotate **Gear D** for **Gear C** to make 1 full rotation? Write your answer in the table below.

Test how many times **Gear D** must be rotated to fully rotate **Gears B** and **A**, writing your answers in the table.



Gear	How many teeth does the gear have?	How many times was Gear D rotated?
C		
B		
A		

2. Complete the sentence below using the word bank. This explains the relationship between the number of teeth on each gear, and the number of times Gear D must be rotated.

bigger **smaller**

Dividing the number of teeth on the _____ gear
by the number of teeth on the _____ gear tells
you how many times it must be rotated.

3. **Gear X** has 3 teeth. **Gear Y** has 15 teeth.
How many times would you need to spin **Gear X** for **Gear Y**
to make 1 full rotation?