

Name: _____ Date: _____

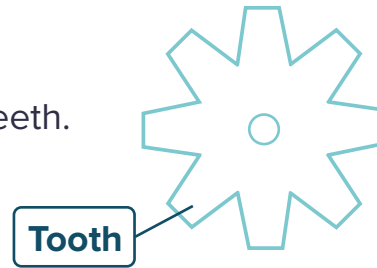


Electricity

Worksheet 1b

Turbines and Gears Extension

- For each of the gears, count the number of teeth.
Write the number of teeth on the gear.



- Connect **Gear D** and **Gear C**.

How many times do you need to rotate **Gear D** for **Gear C** to make one 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		

- Complete this sentence with the words below to explain the relationship between the number of teeth each gear has, and the number of times gear D must be rotated to spin it.

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.

- 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 one full rotation?