

## 6. Gears

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### Student learning outcomes

- Students will learn the relationships between a gear's radius, circumference, and number and size of teeth.
- Students will draw two gears that mesh.
- Students will demonstrate the accuracy of their gears by moving them in a realistic fashion.

### Real world applications:

- Animation, scientific applications, and even advertising require that motion takes place in a believable way. Using algebra is the only way to make this happen consistently.

### Assignment requirements:

- The page has an SVG image with two gears.
- Place the gears so that they mesh.
- Move one of the gears around.
- Calculate the speed required to make the second gear rotate at the same rate as the first, despite being a different size.