## G7 Playlist: Angle Relationships

Aligns with CCSS.MATH.CONTENT.7.G.B.5: Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.

## Related Standards

- 8.G.A. 5 Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.
- HSG.CO.C. 9 Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.



## Objectives

In this playlist, you will learn and practice the following skills:

- Find missing angles of supplementary angles.
- Find missing angles of vertical angles.
- Find missing angles of complementary angles.
- Identify supplementary, complementary, and vertical angles.


## Let's get started!

## Key Terms

- Supplementary Angles are pairs of angles whose measures add to $180^{\circ}$.
- Complementary Angles are pairs of angles whose measures add to $90^{\circ}$.
- Vertical Angles are congruent angles that are opposite each other when two lines intersect.
- Congruent means that two objects are the same shape and size.
- A vertex is the common point where two lines, segments, or rays meet to form an angle.

