



## Trigonometric Addition and Subtraction Formulas

### Today's Standard

HSF.TF.C9 - (+) Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.

### Real-World Applications for this Standard

Calculating angles in navigation and aviation; Designing and analyzing wave patterns in engineering; Solving physics problems involving oscillations and waves; Modeling periodic phenomena in economics and biology

### Today I Learned

Today, we learned about special math formulas for sine, cosine, and tangent. These help us solve tricky problems and are important for things like navigation and engineering.

### Common Stumbling Blocks

Sometimes, students mix up the formulas for sine, cosine, and tangent. Another common problem is thinking these formulas aren't useful in real life. But they are very helpful in many jobs!

### Quiz Me

- What are sine, cosine, and tangent?
- Can you name one use for these formulas?
- Why is it important to know these formulas?
- What happens if we mix up the formulas?
- How can these formulas help in real life?

### Help Me

These math formulas help us figure out angles and distances. For example, pilots use them to navigate planes, and engineers use them to design buildings and bridges.