

1. Use the formulas for $\sin \alpha \pm \beta$ to derive the formulas for $\tan \alpha \pm \beta$.



2. If you substitute $\alpha = 0$ and $\beta = \theta$ in the subtraction equation above, what property have you proved?

Evaluate each expression without using a calculator.

3. $\tan 195^\circ$

4. $\cot (-15^\circ)$