

**Link Sheet**

Basic Knowledge	Algebraic
$\sin \frac{\pi}{4} = \text{-----}$ $\sin \frac{3\pi}{4} = \text{-----}$ $\sin \left( \frac{\pi}{4} + \frac{3\pi}{4} \right) = \text{-----}$ $\sin \frac{\pi}{4} + \sin \frac{3\pi}{4} = \text{-----}$	<p>Show algebraically that the following is true.</p> $\sin \left( \frac{\pi}{4} + \frac{3\pi}{4} \right) = \sin \frac{\pi}{4} \cos \frac{3\pi}{4} + \cos \frac{\pi}{4} \sin \frac{3\pi}{4}$
Counter-Example	Complementary Angles
<p>Give two examples that are not equal to the following.</p> <p>Then give explanations as to why they are not equal. Try to think of common mistakes people make when working with expressions like these.</p> $\sin \left( \frac{\pi}{4} + \frac{3\pi}{4} \right)$	<p>Why does <math>\cos 60^\circ = \sin 30^\circ</math>? Prove using your identities.</p>