

Chapter 6.1-6.3 – some REVIEW

1. If B is an angle in standard position, $\sin B = -\frac{2}{5}$ and $\cot B > 0$, find the exact value of:

a) $\sec B$

b) $\sin 2B$

c) $\cos 2B$

2. Find the *exact value* of $\sin(255^\circ)$.

3. Find the *exact value* of: $\cos \frac{\pi}{4} \cos \frac{\pi}{12} + \sin \frac{\pi}{4} \sin \frac{\pi}{12}$

4. Prove the following identity.

$$\frac{\sin 2x}{1 + \cos 2x} = \frac{\sec^2 x - 1}{\tan x}$$

5. Prove the following identity.

$$\frac{\tan x - \sin x}{\sin^3 x} = \frac{\sec x}{1 + \cos x}$$