

1. Find the exact measure for $\tan 15^\circ$.

2. Find the exact measure for $\sin \frac{7\pi}{12}$.

3. Draw and label the given triangles using the following information:

a. θ is in quadrant IV and $\sec \theta = \frac{25}{7}$.

b. B is in quadrant III and $\cot B = \frac{4}{3}$.

4. Use the triangles above to find the following:
(Show expansion, substitution, math and answer!)

a. $\sin(B + \theta)$

b. $\cos\left(\frac{2\pi}{3} - B\right)$

5. Write the following as a single trig function of a single angle: (Hint ... think of the identities backwards.)
 $\cos 25^\circ \cos 32^\circ - \sin 25^\circ \sin 32^\circ$