

Name : _____

For numbers 1-3, use the *sum/difference* formulas to evaluate:

1) $\sin(195^\circ) =$

2) $\cos\left(\frac{5\pi}{12}\right) =$

3) $\tan\left(\frac{-7\pi}{12}\right) =$



For numbers 4 and 5, use the *half angle* formulas to evaluate:

4) $\sin(15^\circ) =$

5) $\cos(112.5^\circ) =$



6) $\cos \theta = -\frac{2}{7}$ $\frac{\pi}{2} < \theta < \pi$

$\tan \alpha = \frac{4}{3}$ $\pi < \alpha < \frac{3\pi}{2}$

a) $\sin\left(\frac{\theta}{2}\right) =$

b) $\cos(2\alpha) =$

c) $\tan(2\theta) =$

d) $\cos(\alpha - \theta) =$

e) $\sin(\theta + \alpha) =$

f) $\tan(\alpha + \theta) =$

$$\cos \theta = \frac{8}{17} \quad \frac{3\pi}{2} < \theta < 2\pi$$

1. $\sec 2\theta =$

2. $\cot 2\theta =$

3. $\csc \frac{\theta}{2} =$

4. $\csc 2\theta =$

5. $\sec \frac{\theta}{2} =$

6. $\cot \frac{\theta}{2} =$
