Pre – Calculus Name _____
Section 5.5 Practice

For numbers 1 and 2, use the given information to find the exact value of each of the following.

1. $\sin\theta = \frac{15}{17}$, θ, $\frac{\pi}{2} < \theta < \pi$

a) $\sin 2\theta$ b) $\cos 2\theta$ c) $\tan 2\theta$

2. $\cot\theta = 2$, $\cos\theta < 0$

a) $\sin 2\theta$ b) $\cos 2\theta$ c) $\tan 2\theta$

For numbers 3 and 4, write each expression as the sine, cosine, or tangent of a double angle. Then find the exact value of the expression.

3. $2\sin 15° \cos 15°$

4. $2\cos^2\frac{\pi}{8} - 1$

For numbers 5 – 7, use a half-angle formula to find the exact value of each expression.

5. $\cos 22.5°$

6. $\tan 112.5°$

7. $\tan\frac{7\pi}{8}$