Student ID		

Last Name: _____

First Name: _____

Show all your work.
If necessary, use extra sheets.

When appropriate,
BOX your final answer.

MA1
Homework
19

1. Solve for x on the interval $0 < x \le 2\pi$: $\sin^2 x - 4\sin x + 3 = 0$

2. What is the exact value of $\sin\frac{\pi}{6} + \cos\pi$?

3. What is the exact numerical value of $\tan\left(-\frac{3\pi}{4}\right)$?

4. What is the exact numerical value of $\sec^2\frac{5\pi}{4} - \tan^2\frac{5\pi}{4}$?

5. The positive value of $\sin(\arccos x)$ equals

(A) $\sqrt{1+x^2}$ (B) $\sqrt{1-x^2}$ (C) $1+x$ (D) $1-x$

6. $\cos\left(\frac{\pi}{4}+x\right)$ is equal to

(A) $\frac{1}{2}(\cos x - \sin x)$ (B) $\frac{1}{2}(\cos x + \sin x)$

(C) $\frac{\sqrt{2}}{2}(\cos x - \sin x)$ (D) $\frac{\sqrt{2}}{2}(\cos x + \sin x)$

7. If x is a positive acute angle, then $\frac{\sin x}{\sqrt{1-\sin^2 x}}$ is equivalent to

(A) $\cos x$ (B) $\tan x$ (C) $\sec x$ (D) $\cot x$

8. The expression $\sin\left(\frac{3\pi}{2}+x\right)$ is equivalent to

(A) $\cos x$ (B) $\sin x$ (C) $-\cos x$ (D) $-\sin x$