

College of the Redwoods  
Mathematics Department

Math 25 — Trigonometry  
Final Exam Rapid Fire Portion

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**Read Carefully!** You may not use a calculator on this portion of the examination. Once you have completed this part of the examination, you may begin work on the second part of the examination. Try to finish this part of the examination in approximately 10 minutes as the second part of the examination will require a greater block of time. You may use your calculator on the second part of the examination. Good luck!

### Rapid Fire Questions

**Instructions:** For each of the following questions, select the “best” answer and darken the corresponding oval on your scantron. Good luck!

1.  $\sin \frac{2\pi}{3}$  equals

- (a)  $\frac{1}{2}$                       (b)  $\frac{\sqrt{3}}{2}$                       (c)  $\frac{-\sqrt{3}}{2}$                       (d)  $-\frac{1}{2}$                       (e)  $-1$

2.  $\cos \frac{5\pi}{6}$  equals

- (a)  $\frac{1}{2}$                       (b)  $\frac{\sqrt{3}}{2}$                       (c)  $\frac{-\sqrt{3}}{2}$                       (d)  $-\frac{1}{2}$                       (e)  $-1$

3.  $\tan \frac{3\pi}{4}$  equals

- (a)  $\frac{1}{2}$                       (b)  $\frac{\sqrt{3}}{2}$                       (c)  $\frac{-\sqrt{3}}{2}$                       (d)  $-\frac{1}{2}$                       (e)  $-1$

4.  $\sin \frac{7\pi}{4}$  equals

- (a)  $\sqrt{3}$                       (b)  $-\frac{\sqrt{3}}{3}$                       (c)  $\frac{\sqrt{2}}{2}$                       (d)  $\frac{-\sqrt{2}}{2}$                       (e)  $-1$

5.  $\cos \pi$  equals

- (a)  $\sqrt{3}$                       (b)  $-\frac{\sqrt{3}}{3}$                       (c)  $\frac{\sqrt{2}}{2}$                       (d)  $\frac{-\sqrt{2}}{2}$                       (e)  $-1$

6.  $\tan \frac{11\pi}{6}$  equals

- (a)  $\sqrt{3}$                       (b)  $-\frac{\sqrt{3}}{3}$                       (c)  $\frac{\sqrt{2}}{2}$                       (d)  $\frac{-\sqrt{2}}{2}$                       (e)  $-1$

7.  $\sin^{-1} \left( -\frac{\sqrt{2}}{2} \right)$  equals

- (a)  $-\frac{\pi}{4}$                       (b)  $\frac{7\pi}{4}$                       (c)  $\frac{2\pi}{3}$                       (d)  $-\frac{\pi}{3}$                       (e)  $\frac{5\pi}{3}$

8.  $\cos^{-1} \left( -\frac{1}{2} \right)$  equals

- (a)  $-\frac{\pi}{4}$                       (b)  $\frac{7\pi}{4}$                       (c)  $\frac{2\pi}{3}$                       (d)  $-\frac{\pi}{3}$                       (e)  $\frac{5\pi}{3}$

9.  $\tan^{-1} (-\sqrt{3})$  equals

- (a)  $-\frac{\pi}{4}$                       (b)  $\frac{7\pi}{4}$                       (c)  $\frac{2\pi}{3}$                       (d)  $-\frac{\pi}{3}$                       (e)  $\frac{5\pi}{3}$

**Solutions to Quizzes**

**Solution to Quiz:**  $\frac{\sqrt{3}}{2}$  ■

**Solution to Quiz:**  $-\frac{\sqrt{3}}{2}$  ■

**Solution to Quiz:**  $-1$  ■

**Solution to Quiz:**  $-\frac{\sqrt{2}}{2}$  ■

**Solution to Quiz:**  $-1$  ■

**Solution to Quiz:**  $-\frac{\sqrt{3}}{3}$  ■

**Solution to Quiz:**  $-\frac{\pi}{4}$  ■

**Solution to Quiz:**  $\frac{2\pi}{3}$  ■

**Solution to Quiz:**  $-\frac{\pi}{3}$  ■