MAT 182 – Homework 9
Sections 4.1 and 4.2

<u>Directions</u>: Show all work and write your final answer in the space provided.

1. Find an equivalent algebraic expression for cos(arcsin(2x)).   1. _____

2. Solve (in degrees): $\sin x = -1$ 2. _____

3. Solve $\cos x = -0.5478$ in the interval [0°, 360°). Round to the nearest tenth.   3. _____

4. Solve $\sin x = -2/3$ in the interval [0, 2π). Round to the nearest tenth.   4. _____

5. Solve (in degrees): $\tan \tan x - \sqrt{3} = 0$ 5. _____

6. Solve $\sin x = 0.1574$ in the interval [0°, 360°). Round to the nearest tenth.   6. _____

7. Find an equivalent algebraic expression for tan(arccos(x)).   7. _____

8. Solve $\cos x = 6/7$ in the interval [0, 2π). Round to the nearest tenth.   8. _____

9. Solve (in degrees): $2\tan x = 0$ 9. _____

10. Solve $\tan x = 2.0417$ in the interval [0°, 360°). Round to the nearest tenth.   10. _____

11. Solve $3\sin x + 10 = 7$ in the interval [0, 2π).   11. _____

12. Solve (in degrees): $-2\sin x + 1 = 0$ 12. _____

13. Solve $\tan x = -7/5$ in the interval [0, 2π). Round to the nearest tenth.   13. _____

14. Find an equivalent algebraic expression for sec(arcsin(x)).   14. _____

15. Solve $3\sin x + 6 = 5\sin x + 7$ in the interval [0°, 360°).   15. _____

16. Solve $\cos x = -1.4327$ in the interval $[0°, 360°)$. Round to the nearest tenth.

16. _____

17. Solve (in degrees): $2\cos x + 1 = 0$

17. _____

18. Solve $\sin x = 1/9$ in the interval $[0, 2\pi)$. Round to the nearest tenth.

18. _____

19. Solve (in degrees): $2 \sin x = \sqrt{2}$

19. _____

20. Solve $\sin x = -0.2241$ in the interval $[0°, 360°)$. Round to the nearest tenth.

20. _____

21. Solve (in degrees): $-2 \cos x - \sqrt{3} = 0$

21. _____

22. Solve $3 \cos x + \sqrt{12} = 5 \cos x + \sqrt{3}$ in the interval $[0°, 360°)$.

22. _____

23. Solve (in degrees): $\sqrt{3} \tan x + 1 = 0$

23. _____

24. Solve (in radians): $2\sqrt{3} \sin x + 3 = 0$

24. _____

25. Solve (in degrees): $\sqrt{2} \cos x + 1 = 0$

25. _____