

PreCalculus 11
Practice WS 2B.4

Show all work and answers on separate paper.

Part I Solve to the nearest degree. $0 \leq \theta < 180^\circ$

1. $\sin \theta = 0.75$

2. $\cos \theta = -\frac{3}{7}$

3. $3 \sin \theta + 2 = 1$

4. $5 \tan \theta - 7 = 2 \tan \theta$

Part II Solve to the nearest degree. $0 \leq \theta < 360^\circ$

5. $\sin \theta = -0.2174$

6. $\tan \theta = 4.67$

7. $3 \cos \theta + 5 = 4$

8. $3 \cos \theta = 15$

9. $2 \tan \theta + 6 = 11$

10. $4 \sin \theta - 2 = 1$

11. $8 \sin \theta - 3 = \sin \theta + 1$

12. $9 \cos \theta = -3 - 5 \cos \theta$

13. $\tan \theta + 14 = 3 \tan \theta$

14. $8(\tan \theta - 5) - 6 = -3 \tan \theta$

Part III Solve to the nearest degree. $180^\circ < \theta < 360^\circ$

15. $4 \sin \theta + 1 = 15$

16. $3(\cos \theta + 2) + 2 = 7$

17. $4 \tan \theta + 8 = \tan \theta - 1$

18. $5(\sin \theta - 2) - 2 = -14$

19. $8 + 9 \sin \theta = 10$

KEY

1. $49^\circ, 131^\circ$
2. 115°
3. No solution
4. 67°
5. $193^\circ, 347^\circ$
6. $78^\circ, 258^\circ$
7. $109^\circ, 251^\circ$
8. No solution
9. $68^\circ, 248^\circ$
10. $49^\circ, 131^\circ$
11. $35^\circ, 145^\circ$
12. $102^\circ, 258^\circ$
13. $82^\circ, 262^\circ$
14. $77^\circ, 257^\circ$
15. No answer
16. 251°
17. 288°
18. $204^\circ, 336^\circ$
19. No answer