

Find  $\theta$  (degrees) to 2 decimal places or  $x$  (radians) to 4 decimal places, getting:

- a) the general solution
- b) the first 3 positive values.

1.  $\theta = \sin^{-1} 0.195$
2.  $\theta = \cos^{-1} 0.605$
3.  $\cos \theta = -0.2843$
4.  $\sin \theta = -0.9541$
5.  $\cos x = 0.845$
6.  $\sin x = 0.227$
7.  $x = \sin^{-1}(-0.97)$
8.  $x = \cos^{-1}(-0.007)$
9.  $\theta = \cos^{-1} 0.91$
10.  $\theta = \cos^{-1} 0.36$
11.  $\sin \theta = 0.53$
12.  $\sin \theta = 0.28$
13.  $\cos \theta = -0.15$
14.  $\cos \theta = -0.84$
15.  $\theta = \sin^{-1}(-0.76)$
16.  $\theta = \sin^{-1}(-0.62)$
17.  $x = \cos^{-1} 0.26$
18.  $x = \cos^{-1} 0.73$
19.  $x = \sin^{-1} 0.98$
20.  $\sin x = 0.52$
21.  $\cos x = -0.1$
22.  $\cos x = -0.2$
23.  $x = \sin^{-1}(-0.63)$
24.  $x = \sin^{-1}(-0.04)$

## Answers

1. a.  $11.24^\circ + 360n^\circ$  and  $168.76^\circ + 360n^\circ$   
b.  $11.24^\circ$ ,  $168.76^\circ$ ,  $371.24^\circ$
2. a.  $52.77^\circ + 360n^\circ$  and  $-52.77^\circ + 360n^\circ$   
b.  $52.77^\circ$ ,  $307.23^\circ$ ,  $412.77^\circ$
3. a.  $106.52^\circ + 360n^\circ$  and  $-106.52^\circ + 360n^\circ$   
b.  $106.52^\circ$ ,  $253.48^\circ$ ,  $466.52^\circ$
4. a.  $-72.57^\circ + 360n^\circ$  and  $252.57^\circ + 360n^\circ$   
b.  $252.57^\circ$ ,  $287.43^\circ$ ,  $612.57^\circ$
5. a.  $0.5642 + 2\pi n$  and  $-0.5642 + 2\pi n$   
b.  $0.5642$ ,  $5.7190$ ,  $6.8473$
6. a.  $0.2290 + 2\pi n$  and  $2.9126 + 2\pi n$   
b.  $0.2290$ ,  $2.9126$ ,  $6.5122$
7. a.  $-1.3252 + 2\pi n$  and  $4.4668 + 2\pi n$   
b.  $4.4668$ ,  $4.9580$ ,  $10.7500$
8. a.  $1.5778 + 2\pi n$  and  $-1.5778 + 2\pi n$   
b.  $1.5778$ ,  $4.7053$ ,  $7.8610$
9. a.  $\pm 24.49^\circ + 360n^\circ$   
b.  $24.49^\circ$ ,  $335.51^\circ$ ,  $384.49^\circ$
10. a.  $\pm 68.90^\circ + 360n^\circ$   
b.  $68.90^\circ$ ,  $291.10^\circ$ ,  $428.90^\circ$
11. a.  $32.01^\circ + 360n^\circ$  and  $147.99^\circ + 360n^\circ$   
b.  $32.01^\circ$ ,  $147.99^\circ$ ,  $392.01^\circ$
12. a.  $16.26^\circ + 360n^\circ$  and  $163.74^\circ + 360n^\circ$   
b.  $16.26^\circ$ ,  $163.74^\circ$ ,  $376.26^\circ$
13. a.  $\pm 98.63^\circ + 360n^\circ$   
b.  $98.63^\circ$ ,  $261.37^\circ$ ,  $458.63^\circ$
14. a.  $\pm 147.14^\circ + 360n^\circ$   
b.  $147.14^\circ$ ,  $212.86^\circ$ ,  $507.14^\circ$
15. a.  $-49.46^\circ + 360n^\circ$  and  $229.46^\circ + 360n^\circ$   
b.  $229.46^\circ$ ,  $310.54^\circ$ ,  $589.46^\circ$
16. a.  $-38.32^\circ + 360n^\circ$  and  $218.32^\circ + 360n^\circ$   
b.  $218.32^\circ$ ,  $321.68^\circ$ ,  $578.32^\circ$
17. a.  $\pm 1.3078 + 2\pi n$   
b.  $1.3078$ ,  $4.9754$ ,  $7.5910$
18. a.  $\pm 0.7525 + 2\pi n$   
b.  $0.7525$ ,  $5.5307$ ,  $7.0357$
19. a.  $1.3705 + 2\pi n$  and  $1.7711 + 2\pi n$   
b.  $1.3705$ ,  $1.7711$ ,  $7.6536$
20. a.  $0.5469 + 2\pi n$  and  $2.5947 + 2\pi n$   
b.  $0.5469$ ,  $2.5947$ ,  $6.8300$
21. a.  $\pm 1.6710 + 2\pi n$   
b.  $1.6710$ ,  $4.6122$ ,  $7.9541$
22. a.  $\pm 1.7722 + 2\pi n$   
b.  $1.7722$ ,  $4.5110$ ,  $8.0553$
23. a.  $-0.6816 + 2\pi n$  and  $3.8231 + 2\pi n$   
b.  $3.8231$ ,  $5.6013$ ,  $10.1063$
24. a.  $-0.400 + 2\pi n$  and  $3.1816 + 2\pi n$   
b.  $3.1816$ ,  $6.2432$ ,  $9.4648$