Review 34-1, 34-2, 34-3 Key

(1) Change to radian measure

(a) 18° $\frac{1}{10}\pi$ (b) -72° $-\frac{2}{5}\pi$ (c) 270° $\frac{3}{2}\pi$

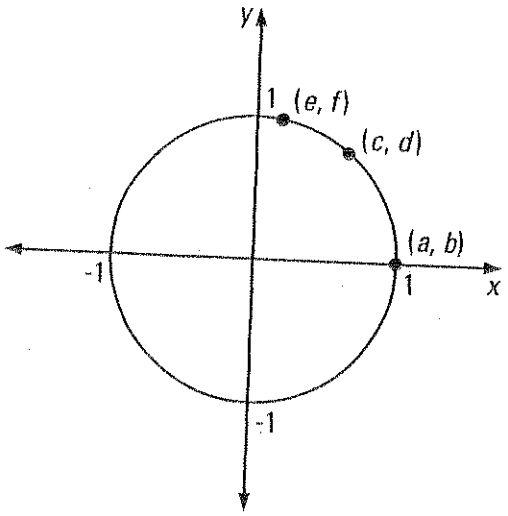
(2) Change to degree measure

(a) $\frac{5}{2}\pi$ 450° (b) $-\frac{7}{9}\pi$ -140° (c) $\frac{5}{4}\pi$ $180^\circ + 45^\circ$ 225°

In 1–12, give the exact value. Do not use a calculator.

1. $\cos 90^\circ$ 0
2. $\cos 0^\circ$ 1
3. $\sin 270^\circ$ -1
4. $\cos 180^\circ$ -1
5. $\sin 180^\circ$ 0
6. $\sin \frac{5}{2}\pi$ 1
7. $\sin -\pi$ 0
8. $\cos 2\pi$ 1
9. $\cos -90^\circ$ 0
10. $\cos \frac{\pi}{2}$ 0
11. $\cos -\pi$ -1
12. $\sin(-270^\circ)$ 1

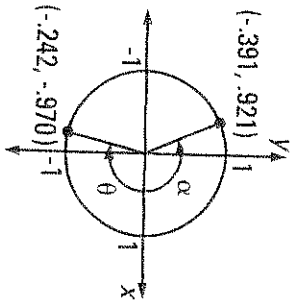
In 14–21, refer to the drawing at the right of the unit circle with the given points on it. Give the letter that could represent the value.



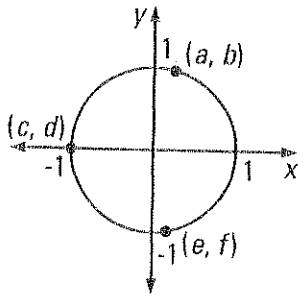
14. $\sin(-310^\circ)$ d
15. $\cos 0^\circ$ a
16. $\cos 80^\circ$ e
17. $\cos 50^\circ$ c
18. $\sin 440^\circ$ f
19. $\sin 1080^\circ$ b
20. $\cos(-670^\circ)$ c
21. $\sin 0^\circ$ b

In 21–24, use the unit circle at the right to find the value.

21. $\cos \alpha$ -0.391
22. $\sin \theta$ -0.970
23. $\cos(\pi + \alpha)$ 0.242
24. $\sin(\pi - \alpha)$ 0.921



In 17–20, use the unit circle at the right. Give the letter which could represent the value.



17. $\cos 75^\circ$ a
18. $\sin(-180^\circ)$ d
19. $\sin(-80^\circ)$ f
20. $\cos 280^\circ$ e