

Algebra 2 Assignment 50 KeyNEW: Book page 783

7. $a, 270^\circ$

9. $q, -\pi$

11. $-120^\circ \cdot \frac{\pi}{180^\circ} = -\frac{12\pi}{18} = \frac{-2\pi}{3}$ radians

13. $\frac{2\pi}{3} \cdot \frac{180^\circ}{\pi} = 120^\circ$

15. $5 \cdot \frac{180^\circ}{\pi} = \frac{900^\circ}{\pi} \approx 286.48^\circ$

17. $\frac{\pi}{4}$ positive co-terminal: $\frac{\pi}{4} + 2\pi = \frac{\pi}{4} + \frac{8\pi}{4} = \frac{9\pi}{4}$

negative co-terminal: $\frac{\pi}{4} - \frac{8\pi}{4} = \frac{-7\pi}{4}$

21. $180^\circ \cdot \frac{\pi}{180^\circ} = \pi$ radians

23. $120^\circ \cdot \frac{\pi}{180^\circ} = \frac{20\pi}{3}$ radians

25. $-800^\circ \cdot \frac{\pi}{180^\circ} = \frac{-40\pi}{9}$ radians

27. $54^\circ \cdot \frac{\pi}{180^\circ} = \frac{6\pi}{2} = 3\pi$ radians

29. $\pi \cdot \frac{180^\circ}{\pi} = 180^\circ$

31. $-\frac{8\pi}{3} \cdot \frac{180^\circ}{\pi} = -480^\circ$

33. $5\pi \cdot \frac{180^\circ}{\pi} = 900^\circ$

35. $7 \cdot \frac{180^\circ}{\pi} = \frac{1260^\circ}{\pi} \approx 401.07^\circ$

37. $-1.5 \cdot \frac{180^\circ}{\pi} = \frac{-270^\circ}{\pi} \approx -85.94^\circ$

39. 310° positive coterminal: $310^\circ + 360^\circ = 670^\circ$

negative coterminal: $310^\circ - 360^\circ = -50^\circ$

41. $\frac{9\pi}{4}$ positive: $\frac{9\pi}{4} - 2\pi = \frac{9\pi}{4} - \frac{8\pi}{4} = \frac{\pi}{4}$ (or $\frac{17\pi}{4}$)

negative: $\frac{9\pi}{4} - 8\pi = \frac{\pi}{4} - \frac{8\pi}{4} = -\frac{7\pi}{4}$

43. 720° positive: $720^\circ - 360^\circ = 360^\circ$

negative: $720^\circ - 360^\circ = 360^\circ - 360^\circ = 0^\circ - 360^\circ = -360^\circ$

360° and -360°

45. -900°

$-900^\circ + 360^\circ = -540^\circ + 360^\circ = -180^\circ$

$-180^\circ + 360^\circ = 180^\circ$

-180° and 180°