

COLLEGE ALGEBRA EVEN ANSWERS**PS89**

- 2] 23.90 hours 4] $\frac{13}{34}$ 6] 4, 6, 8 8] $\frac{x^2}{24} + \frac{y^2}{49} = 1$ (GRAPH) 10] $-\cos x$ 12] $2 - \sqrt{3}$
- 14] 2, -4, -10, -16 16] $120^\circ, 240^\circ$ 18] (GRAPH) 20] (PROOF) 22] $-\frac{6}{7}$
- 24] 9.06° 26] $-2\sqrt{2} + 2\sqrt{2}i, 2\sqrt{2} - 2\sqrt{2}i$ 28] $\frac{1}{2}$ 30] $4x^4 + 4x^2 + 2$

PS90

- 2] $A = 2000e^{-0.35t}$ 4] $\frac{1}{72}$ 6] \$170 8] (DEVELOP) 10] $\frac{x^2}{25} + \frac{y^2}{16} = 1$ (GRAPH)
- 12] $\frac{x^2}{36} + \frac{y^2}{4} = 1$ (GRAPH) 14] 38 16] $\frac{\pi}{6}, \frac{5\pi}{6}$ 18] (GRAPH) 20] (PROOF)
- 22] 82.82° 24] (GRAPH) 26] -2.60 28] 7 30] 2.28%

PS91

- 2] 16,000 marbles 4] $A = 30e^{1.13t}$ 6] 12 hr 8] 12, 36 10] (DEVELOP)
- 12] (DEVELOP) 14] $\frac{x^2}{36} + \frac{y^2}{32} = 1$ (GRAPH) 16] $\frac{\sqrt{2} - \sqrt{6}}{4}$ 18] $60^\circ, 300^\circ$
- 20] (GRAPH) 22] (PROOF) 24] $A = 26.27^\circ, B = 23.73^\circ$ 26] $\frac{3\sqrt{10}}{10}$
- 28] $\frac{3}{25}$ 30] 0

PS92

- 2] 266.60 min 4] 7 6] $\frac{7}{13}$ 8] $-\frac{1}{4}$ 10] (DEVELOP) 12] $-\sin x$
- 14] -8, -6, -4, -2 16] $0, \frac{\pi}{3}, \frac{2\pi}{3}, \pi, \frac{4\pi}{3}, \frac{5\pi}{3}$ 18] (PROOF) 20] 44.36°
- 22] $\sqrt{3} + i, -1 + \sqrt{3}i, -\sqrt{3} - i, 1 - \sqrt{3}i$ 24] $123.11 \text{ cm}^2, 38.68 \text{ cm}$ 26] $\frac{9}{8}$ 28] 1 30] a) $\frac{1}{25}$ b) 25

PS93

- 2] 72.2 hr 4] 4:27:17 6] (PROOF) 8] (PROOF) 10] 20,18,16,14
- 12] $\frac{\sqrt{2}}{2}(\sin x - \cos x)$ 14] $\frac{x^2}{9} + \frac{y^2}{16} = 1$ (GRAPH) 16] $40^\circ, 100^\circ, 160^\circ, 220^\circ, 280^\circ, 340^\circ$
- 18] (GRAPH) 20] $2\text{cis}4^\circ, 2\text{cis}76^\circ, 2\text{cis}148^\circ, 2\text{cis}220^\circ, 2\text{cis}292^\circ$ 22] $x = \frac{6}{23}, y = \frac{67}{23}$
- 24] $\frac{10}{3}$ 26] $\frac{5}{18}$ 28] a) 36 b) $\frac{1}{36}$ 30] 4.46%

PS94

- 2] $A = 4e^{0.20r}$ 4] 907,200 6] (DEVELOP) 8] (PROOF) 10] (PROOF)
- 12] $\frac{\sqrt{2+\sqrt{3}}}{4}$ 14] $-\cos x$ 16] $\frac{2\pi}{3}$ 18] 7.21 ft 20] 4, -8
- 22] $\frac{x^2}{25} + \frac{y^2}{16} = 1$ (GRAPH) 24] $\frac{3}{5}$ 26] 2 28] a) $\frac{1}{8}$ b) $\frac{1}{9}$ 30] $\frac{9}{2}$

PS95

- 2] $\frac{1}{50}$ 4] 1227 min 6] $1.5\text{cis}13.28^\circ, 1.5\text{cis}103.28^\circ, 1.5\text{cis}193.28^\circ, 1.5\text{cis}283.28^\circ$
- 8] (GRAPH) 10] a) $y = \tan \theta$ b) $y = \cot \theta$ 12] (PROOF) 14] (DEVELOP)
- 16] $\frac{\sqrt{2}}{2}(\sin x + \cos x)$ 18] $11.25^\circ, 56.25^\circ, 101.25^\circ, 146.25^\circ, 191.25^\circ, 236.25^\circ, 281.25^\circ, 326.25^\circ$
- 20] ${}_7P_2 = 42, {}_7C_2 = 21$ 22] $-4, -\frac{4}{3}, \frac{4}{3}, 4, \frac{20}{3}$ 24] $\frac{x^2}{9} - \frac{y^2}{16} = 1; V(\pm 3, 0); y = \pm \frac{4}{3}x$ (GRAPH)
- 26] 1 28] -1 30] $\sqrt[3]{x} - 1$