

College Algebra Even Answers

PS 43: 2. 523.6 ft. 4. 50 hours 6. S=31 yrs. J = 33 yrs. 8. $y=5 \sin x$

10. exponential graph (0,3) (1,1) 12. $-\sqrt{2}-1$ 14. 1 16. 10 18. yes

20. $y = -\frac{3}{2}x + \frac{3}{2}$ 22. $\frac{35}{9}$ 24. Approx: $H = -8C + 922$

26. a] Domain = $\{x \in \mathfrak{R} \mid -6 \leq x \leq 2\}$; Range = $\{y \in \mathfrak{R} \mid -2 \leq y \leq 6\}$

b] Domain = $\{x \in \mathfrak{R} \mid -5 \leq x \leq 5\}$; Range = $\{y \in \mathfrak{R} \mid -4 \leq y \leq 4\}$

28. $y = (x-2)^2 - 1$ 30. A

PS 44: 2. $\frac{hw}{w+m}$ hrs. 4. 100 mi. 6. 314.16 yd. 8. $y = 11 \sin x$

10. Graph Exponential Curve through (-2,1) (1, 1/8) 12. $\frac{-4\sqrt{3}}{3}$ 14. $\frac{46}{3}$

16. 2 18. Yes 20. $x + 4y - 10 = 0$

22. $(\frac{5}{2}, \frac{1}{2})$ 24. Approx: $F = 55.56 D - 1555.68$ 26. a] 45° b] $\frac{3}{5}$

28. 2 30. B

PS 45: 2. 8640 4. 2799.16 mi. 6. 2400 liters

8. approx $Cu = -.2317Pb + 55.2056$, $r = -0.8104$, good correlation 10. $y = 10 \sin \theta$

12. $(x+2)^2 + (y-5)^2 = 36$ 14. $\frac{9\sqrt{2} + 4\sqrt{3}}{6}$ 16. 90 18. 30

20. 3 22. $x^2 - 4x - 1 = 0$ 24. $f(x)=2x+3$ 26. $y = \sqrt{x-2} + 3$

28. proof 30. A

PS 46: 2] 34,560 4] $\frac{200b}{d+2b}$ balls 6] $O = 9$ mph, $B = 18$ mph

8] $R = 12, E = 4, D = 2$ 10] $\left(x + \frac{3}{2} - \frac{\sqrt{15}}{2}i\right)\left(x + \frac{3}{2} + \frac{\sqrt{15}}{2}i\right)$ 12] $y = -12 \cos x$

14] $(x-h)^2 + (y-k)^2 = 6^2$ 16] a] $\frac{\sqrt{3}-\sqrt{2}}{2}$ b] $-2\sqrt{2}$ 18] 0 20] $\frac{2}{9}$

22] Yes 24] a] $\frac{-5\sqrt{194}}{194}$ b] $\frac{\sqrt{7}}{4}$ 26] $g(x) = \sqrt{x-4} - 5$ 28. $1 - 2x - h$ 30] C

PS 47: 2] $\frac{dm}{40}$ days 4] $\frac{dm}{12}$ dollars 6] B = 40 mph, W = 10 mph 8] $y = -3 + 7\cos x$

10] $x^2 - 6x + 13 = 0$ 12] $O = 0.2434N - 1.1762$; $r = .9596$; good correlation

14] Exp Curve (0,8) (-1,4) 16] 5 18] 3 20] $\frac{x}{\frac{3}{2}} - \frac{y}{\frac{1}{2}} = 1$ 22] $\frac{8}{3}$

24] (a) 150° (b) $-\frac{3\sqrt{7}}{7}$ 26] $y = \sqrt{x+4} + 2$ 28] a] $\frac{74}{3}$ b] $\frac{81}{7}$ c] $\frac{727}{27}$ 30] B

PS 48: 2] 324 4] 1920 cal 6] 450 ml of 40%, 150 ml of 80% 8] \$5000

10] $\frac{7}{3}$ 12] $y = \frac{3}{4}x + \frac{5}{4}$ 14] $y = 6 - 14\sin\theta$ 16] $x^2 - 2x + 10 = 0$

18] $I = 4.2727E - 19.4935$; $r = .8253$; good correlation 20] Exp Curve (0,8) (1,4) 22] 11

24] 50 26] $y = \sqrt{x+1} - 3$ 28] Proof 30] D

PS 49: 2] 480 4] 51 days 6] $\frac{7dp}{4c}$ dollars 8] Refer to L 49

10] 5 12] $\frac{x}{-\frac{2}{5}} - \frac{y}{\frac{2}{9}} = 1$ 14] $y = 1 + 5\sin x$ 16] (a) -45° (b) -60°

18] $3(x-2-2i)(x-2+2i)$ 20] $(x+2)^2 + (y+3)^2 = 9$ 22] 0

24] 10 ft. 26] $g(x) = |x-4| - 3$ 28] $2x$ 30] C

PS 50: 2] 40 4] J = 30 yrs., S = 45 yrs. 6] 2 qts. 8] $45^\circ, 315^\circ$

10] Refer to L 49 12] -2 14] $y = -3x + 16$ 16] $y = 15 - 25\cos\theta$

18] $(x-1-\sqrt{3}i)(x-1+\sqrt{3}i)$ 20] $(x+2)^2 + (y-4)^2 = 16$ 22] a] $\frac{26}{5}$ b] 81

24a] 150° b] $\frac{\sqrt{33}}{7}$ 26] $g(x) = |x+4| - 5$ 28] proof 30] B