

Answers

5.1 Extra Practice

- 7
- no real sixth roots
- 3
- 216
- 8
- 4
- 3125
- $\frac{1}{1024}$
- $\frac{1}{81}$
- 0.51
- 7.42
- 8869.01
- 0.07
- 25.64
- 12.41
- $x = \pm 1.78$
- $x = -2.97$
- $x = \pm 3$
- $x = 3.42$
- $x = \pm 5$
- $x = -7$
- 7.6 in.
- 7 m
- a. about 0.72 au b. 12 years

5.1 Reteach

- 5
- ± 7
- ± 3
- 3
- 2
- 8
- 125
- 100
- 2
- $x = \pm 4$
- $x = 5$
- $x \approx 12.32, -0.32$
- $x = 3$
- $x \approx -2.57$
- $x \approx \pm 1.57$

5.1 Enrichment and Extension

- $n = 6$
- $n = 2$
- $n = 5$
- $n = -1$
- $n = -4$ or $n = 4$
- $n = 8$
- $n = -2$
- no solution
- $n = 3$
- $n = -4$
- $n = -16$
- $n = \frac{5}{2}$
- $n = \frac{1}{2}, n = -\frac{3}{2}$
- $n = 4, n = -1$

Challenge: $a = 1, b = -2,$ and $c = -1$

5.1 Puzzle Time

I WISH YOU WOULD NOT ASK ME THAT I DO NOT KNOW ONE BUG FROM ANOTHER

5.2 Cumulative Practice

- $x = 3 \pm i$
- $x = -4 \pm i$

5.2 Prerequisite Skills Practice

- y^2
- p^3

5.2 Extra Practice

- $\frac{1}{2^{3/5}}$
- 4
- $11^{1/3}$
- $9^{2/5}$
- $3^{3/2}$
- $5^{4/3}$
- 25
- $3^5\sqrt{2}$
- 2
- $\frac{1}{10}$
- 5
- 2
- $\frac{\sqrt[3]{12}}{3}$
- $\frac{\sqrt[3]{20}}{5}$
- $\frac{7^4\sqrt{4}}{2}$
- $\frac{35 + 7\sqrt{3}}{22}$
- $\frac{-6\sqrt{2} + 6\sqrt{7}}{5}$
- $\frac{\sqrt{30} + \sqrt{6}}{12}$
- $4(25^{2/3})$
- $-5\sqrt{6}$
- $8^3\sqrt{3}$
- $13^5\sqrt{2}$
- $5(3^{1/4})$
- $13(7^{1/3})$
- $5x^2y^4$
- $\frac{2r^2}{p^5}$
- $\frac{n^2}{p^3}$
- a. $r = \frac{\sqrt{\pi V}}{3\pi}$
- $S = 6\sqrt{\pi V} + \frac{V}{9}$
- $(36\sqrt{3\pi} + 12) \text{ m}^2$

5.2 Reteach

- $7^{1/2}$
- $14^{3/2}$
- $\frac{1}{5^{4/5}}$
- $10^{3/4}$
- $\frac{3}{2}$
- $7^{1/2}$
- $6 \cdot 2^{1/2}$
- $\frac{1}{225}$
- 27
- 15
- 9
- $2^4\sqrt{6}$
- 3
- 2
- $\frac{1}{4}$
- 5
- 3
- $\frac{1}{5}$