Find the square root(s).

1. $-\sqrt{16}$ 2. $\sqrt{\frac{25}{169}}$ 3. $\pm\sqrt{12.25}$

-4

$\frac{\sqrt{25}}{\sqrt{169}} = \frac{5}{13}$

± 3.5

Find the cube root.

4. $\sqrt[3]{512}$ 5. $\sqrt[3]{-8}$ 6. $\sqrt[3]{\frac{64}{27}}$

$8 \times 8 \times 8 = 512$

8

$-2 \times -2 \times -2$

-2

$\frac{\sqrt[3]{64}}{\sqrt[3]{27}} = \frac{4}{3}$

7. $5\sqrt{4} - \sqrt{49}$

$5(2) - 7$

$10 - 7$

3

8. $-4\sqrt{100} + 10\sqrt{16}$

$-4(10) + 10(4)$

$-40 + 40$

0

9. $2\sqrt{\frac{25}{64}} - \frac{3}{8}$

$2\left(\frac{5}{8}\right) - \frac{3}{8}$

$\frac{10}{8} - \frac{3}{8}$

$\frac{7}{8}$

10. $\left(\sqrt[3]{1000}\right)^3 + 6$

$1000 + 6$

1006

11. $5\sqrt[3]{-64} + 45$

$5(-4)+45$

$-20+45$

25

12. $61 - 2\sqrt[3]{-125}$

$61-2(-5)$

$61+10$

71

13. A cube-shaped box has a volume of 1331 cubic inches. How tall is the box?

$V=1331\ in^3$

$\sqrt[3]{1331}$

$L=11\quad W=11\quad H=11$

11

14. The area of a square game court is 64 square feet. How long is one side of the court?

$A=64\ ft^2$

$\sqrt[2]{64}$

8×8

8

15. If $x^3 = 125$ and $y^3 = 8$, what is the value of $y - x$?

$x^3 = 125$

$\sqrt[3]{125}$

$x = 5$

$y^3 = 8$

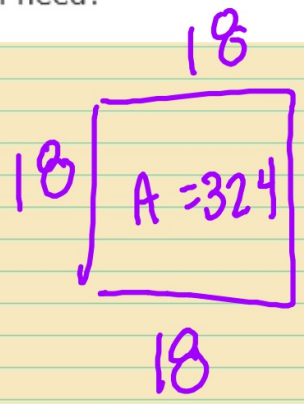
$\sqrt[3]{8}$

$y = 2$

$2 - 5$

$= -3$

16. Mr. Rodriguez has a square garden with an area of 324 square feet. He wants to put a fence along 3 sides of the garden. What is the fewest number of feet of fencing he will need?



$A = S^2$

$\sqrt{324}$

3 sides = 18 + 18 + 18 = 54 ft

17. What is the value of x in the equation $x^3 = \frac{27}{125}$?

$$x^3 = \frac{27}{125}$$

$$\frac{\sqrt[3]{27}}{\sqrt[3]{125}} = \frac{3}{5}$$