

## Solving Equations with Powers & Roots

Solve

- (a)  $x^2 = 9$       (b)  $x^2 = 12.25$   
(c)  $x^2 = 64$     (d)  $x^3 = 64$   
(e)  $27 = x^3$       (f)  $x^3 = -8$

Solve

- (a)  $\sqrt{x} = 4$       (b)  $\sqrt{x} = -4$   
(c)  $9 = \sqrt{x}$       (d)  $\sqrt[3]{x} = 3$   
(e)  $\sqrt[3]{x} = -2$     (f)  $\sqrt[3]{x} = 7.5$

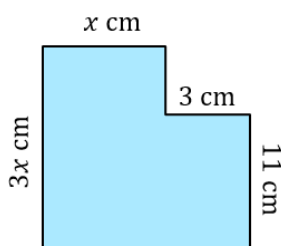
Solve

- (a)  $10 + x^2 = 26$   
(b)  $x^2 - 24 = 120$   
(c)  $x^3 - 3 = 24$   
(d)  $18 + x^3 = 10$   
(e)  $2x^2 - 5 = 13$   
(f)  $50 + 7x^2 = 78$   
(g)  $5x^3 + 7.4 = 12.4$   
(h)  $1 - 2x^3 = 129$

Solve

- (a)  $8 + \sqrt{x} = 11$   
(b)  $\sqrt[3]{x} - 5 = 2$   
(c)  $4\sqrt{x} + 5 = 25$   
(d)  $47 - 3\sqrt[3]{x} = 17$   
(e)  $6 = 3\sqrt{x} - 1.5$

Given that the area of the shape shown is  $108 \text{ cm}^2$ , form an equation in  $x$  and use it to find the value of  $x$ .



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