

Solve each equation by using Square Roots

#1 $2x^2 - 18 = 0$ $\quad +18 \quad +18$ $\frac{2x^2}{2} = \frac{18}{2}$ $\sqrt{x^2} = \sqrt{9}$ $x = \pm 3$	#2 $2x^2 - 8 = 0$ $\quad +8 \quad +8$ $\frac{2x^2}{2} = \frac{8}{2}$ $\sqrt{x^2} = \sqrt{4}$ $x = \pm 2$
#3 $5x^2 + 20 = 0$ $\quad -20 \quad -20$ $\frac{5x^2}{5} = \frac{-20}{5}$ $\sqrt{x^2} = \sqrt{-4}$ $x = \pm 2i$	#4 $3x^2 + 27 = 0$ $\quad -27 \quad -27$ $\frac{3x^2}{3} = \frac{-27}{3}$ $\sqrt{x^2} = \sqrt{-9}$ $x = \pm 3i$
#5 $(x-1)^2 - 4 = 0$ $\quad +4 \quad +4$ $\sqrt{(x-1)^2} = \sqrt{4}$ $x-1 = \pm 2$ $x-1 = 2 \quad x-1 = -2$ $\quad +1 \quad +1 \quad \quad +1 \quad +1$ $x = 3 \quad \quad x = -1$	#6 $(x+2)^2 - 25 = 0$ $\quad +25 \quad +25$ $\sqrt{(x+2)^2} = \sqrt{25}$ $x+2 = \pm 5$ $x+2 = 5 \quad x+2 = -5$ $\quad -2 \quad -2 \quad \quad -2 \quad -2$ $x = 3 \quad \quad x = -7$
#7 $2(x-3)^2 - 8 = 0$ $\quad +8 \quad +8$ $\frac{2(x-3)^2}{2} = \frac{8}{2}$ $\sqrt{(x-3)^2} = \sqrt{4}$ $x-3 = \pm 2$ $x-3 = 2 \quad x-3 = -2$ $\quad +3 \quad +3 \quad \quad +3 \quad +3$ $x = 5 \quad \quad x = 1$	#8 $-3(x+1)^2 + 27 = 0$ $\quad -27 \quad -27$ $\frac{-3(x+1)^2}{-3} = \frac{-27}{-3}$ $\sqrt{(x+1)^2} = \sqrt{9}$ $x+1 = \pm 3$ $x+1 = 3 \quad x+1 = -3$ $\quad -1 \quad -1 \quad \quad -1 \quad -1$ $x = 2 \quad \quad x = -4$

Answer Bank

x = 4 and -2

#8 x = 2 and -4

#4 x = ±3i

#7 x = 5 and 1

#3 x = ±2i

x = 1 and -3

#5 x = 3 and -1

#2 x = ±2

#1 x = ±3

#6 x = 3 and -7