



Solve for x using the quadratic formula.

$$-8x^2 + 6x + 20 = 0$$

$$25x^2 + 5x - 2 = 0$$



# Answer Key

Solve for x using the quadratic formula.

$$-8x^2 + 6x + 20 = 0$$

$$x = \frac{-(6) \pm \sqrt{(6)^2 - 4(-8)(20)}}{2(-8)} = \frac{-6 \pm \sqrt{36 + 640}}{-16}$$

$$= \frac{-6 \pm \sqrt{676}}{-16} = \frac{-6 \pm 26}{-16} = \frac{-6 + 26}{-16}, \frac{-6 - 26}{-16}$$

$$= \frac{20}{-16}, \frac{-32}{-16} = -\frac{5}{4}, 2$$

$$25x^2 + 5x - 2 = 0$$

$$x = \frac{-(5) \pm \sqrt{(5)^2 - 4(25)(-2)}}{2(25)} = \frac{-5 \pm \sqrt{25 + 200}}{50}$$

$$= \frac{-5 \pm \sqrt{225}}{50} = \frac{-5 \pm 15}{50} = \frac{-5 + 15}{50}, \frac{-5 - 15}{50}$$

$$= \frac{10}{50}, \frac{-20}{50} = \frac{1}{5}, -\frac{2}{5}$$



Solve for x using the quadratic formula.

$$6x^2 + 2x - 8 = 0$$

$$-6x^2 + x + 2 = 0$$



# Answer Key

Solve for x using the quadratic formula.

$$6x^2 + 2x - 8 = 0$$

$$x = \frac{-(2) \pm \sqrt{(2)^2 - 4(6)(-8)}}{2(6)} = \frac{-2 \pm \sqrt{4 + 192}}{12}$$

$$= \frac{-2 \pm \sqrt{196}}{12} = \frac{-2 \pm 14}{12} = \frac{-2 + 14}{12}, \frac{-2 - 14}{12}$$

$$= \frac{12}{12}, \frac{-16}{12} = 1, -\frac{4}{3}$$

$$-6x^2 + x + 2 = 0$$

$$x = \frac{-(1) \pm \sqrt{(1)^2 - 4(-6)(2)}}{2(-6)} = \frac{-1 \pm \sqrt{1 + 48}}{-12}$$

$$= \frac{-1 \pm \sqrt{49}}{-12} = \frac{-1 \pm 7}{-12} = \frac{-1 + 7}{-12}, \frac{-1 - 7}{-12}$$

$$= \frac{6}{-12}, \frac{-8}{-12} = -\frac{1}{2}, \frac{2}{3}$$



Solve for x using the quadratic formula.

$$-15x^2 - 4x + 4 = 0$$

$$4x^2 - 6x - 18 = 0$$



# Answer Key

Solve for x using the quadratic formula.

$$-15x^2 - 4x + 4 = 0$$

$$x = \frac{-(-4) \pm \sqrt{(-4)^2 - 4(-15)(4)}}{2(-15)} = \frac{4 \pm \sqrt{16 + 240}}{-30}$$

$$= \frac{4 \pm \sqrt{256}}{-30} = \frac{4 \pm 16}{-30} = \frac{4 + 16}{-30}, \frac{4 - 16}{-30}$$

$$= \frac{20}{-30}, \frac{-12}{-30} = -\frac{2}{3}, \frac{2}{5}$$

$$4x^2 - 6x - 18 = 0$$

$$x = \frac{-(-6) \pm \sqrt{(-6)^2 - 4(4)(-18)}}{2(4)} = \frac{6 \pm \sqrt{36 + 288}}{8}$$

$$= \frac{6 \pm \sqrt{324}}{8} = \frac{6 \pm 18}{8} = \frac{6 + 18}{8}, \frac{6 - 18}{8}$$

$$= \frac{24}{8}, \frac{-12}{8} = 3, -\frac{3}{2}$$



Solve for x using the quadratic formula.

$$-5x^2 - 7x + 6 = 0$$

$$4x^2 + 10x + 4 = 0$$



# Answer Key

Solve for x using the quadratic formula.

$$-5x^2 - 7x + 6 = 0$$

$$x = \frac{-(-7) \pm \sqrt{(-7)^2 - 4(-5)(6)}}{2(-5)} = \frac{7 \pm \sqrt{49 + 120}}{-10}$$

$$= \frac{7 \pm \sqrt{169}}{-10} = \frac{7 \pm 13}{-10} = \frac{7 + 13}{-10}, \frac{7 - 13}{-10}$$

$$= \frac{20}{-10}, \frac{-6}{-10} = -2, \frac{3}{5}$$

$$4x^2 + 10x + 4 = 0$$

$$x = \frac{-(10) \pm \sqrt{(10)^2 - 4(4)(4)}}{2(4)} = \frac{-10 \pm \sqrt{100 - 64}}{8}$$

$$= \frac{-10 \pm \sqrt{36}}{8} = \frac{-10 \pm 6}{8} = \frac{-10 + 6}{8}, \frac{-10 - 6}{8}$$

$$= \frac{-4}{8}, \frac{-16}{8} = -\frac{1}{2}, -2$$





Solve for x using the quadratic formula.

$$6x^2 - 4x - 10 = 0$$

$$-4x^2 + 3x + 10 = 0$$



# Answer Key

Solve for x using the quadratic formula.

$$6x^2 - 4x - 10 = 0$$

$$x = \frac{-(-4) \pm \sqrt{(-4)^2 - 4(6)(-10)}}{2(6)} = \frac{4 \pm \sqrt{16 + 240}}{12}$$

$$= \frac{4 \pm \sqrt{256}}{12} = \frac{4 \pm 16}{12} = \frac{4 + 16}{12}, \frac{4 - 16}{12}$$

$$= \frac{20}{12}, \frac{-12}{12} = \frac{5}{3}, -1$$

$$-4x^2 + 3x + 10 = 0$$

$$x = \frac{-(3) \pm \sqrt{(3)^2 - 4(-4)(10)}}{2(-4)} = \frac{-3 \pm \sqrt{9 + 160}}{-8}$$

$$= \frac{-3 \pm \sqrt{169}}{-8} = \frac{-3 \pm 13}{-8} = \frac{-3 + 13}{-8}, \frac{-3 - 13}{-8}$$

$$= \frac{10}{-8}, \frac{-16}{-8} = -\frac{5}{4}, 2$$



Solve for x using the quadratic formula.

$$2x^2 + 7x + 5 = 0$$

$$-8x^2 + 4x + 4 = 0$$



# Answer Key

Solve for x using the quadratic formula.

$$2x^2 + 7x + 5 = 0$$

$$x = \frac{-(-7) \pm \sqrt{(-7)^2 - 4(2)(5)}}{2(2)} = \frac{-7 \pm \sqrt{49 - 40}}{4}$$

$$= \frac{-7 \pm \sqrt{9}}{4} = \frac{-7 \pm 3}{4} = \frac{-7 + 3}{4}, \frac{-7 - 3}{4}$$

$$= \frac{-4}{4}, \frac{-10}{4} = -1, -\frac{5}{2}$$

$$-8x^2 + 4x + 4 = 0$$

$$x = \frac{-(-4) \pm \sqrt{(-4)^2 - 4(-8)(4)}}{2(-8)} = \frac{-4 \pm \sqrt{16 + 128}}{-16}$$

$$= \frac{-4 \pm \sqrt{144}}{-16} = \frac{-4 \pm 12}{-16} = \frac{-4 + 12}{-16}, \frac{-4 - 12}{-16}$$

$$= \frac{8}{-16}, \frac{-16}{-16} = -\frac{1}{2}, 1$$



Solve for x using the quadratic formula.

$$2x^2 - x - 10 = 0$$

$$-24x^2 + 8x + 2 = 0$$



# Answer Key

Solve for x using the quadratic formula.

$$2x^2 - x - 10 = 0$$

$$x = \frac{-(-1) \pm \sqrt{(-1)^2 - 4(2)(-10)}}{2(2)} = \frac{1 \pm \sqrt{1 + 80}}{4}$$

$$= \frac{1 \pm \sqrt{81}}{4} = \frac{1 \pm 9}{4} = \frac{1 + 9}{4}, \frac{1 - 9}{4}$$

$$= \frac{10}{4}, \frac{-8}{4} = \frac{5}{2}, -2$$

$$-24x^2 + 8x + 2 = 0$$

$$x = \frac{-(-8) \pm \sqrt{(-8)^2 - 4(-24)(2)}}{2(-24)} = \frac{-8 \pm \sqrt{64 + 192}}{-48}$$

$$= \frac{-8 \pm \sqrt{256}}{-48} = \frac{-8 \pm 16}{-48} = \frac{-8 + 16}{-48}, \frac{-8 - 16}{-48}$$

$$= \frac{8}{-48}, \frac{-24}{-48} = -\frac{1}{6}, \frac{1}{2}$$



Solve for x using the quadratic formula.

$$-15x^2 + 8x + 12 = 0$$

$$-21x^2 + x + 2 = 0$$



# Answer Key

Solve for x using the quadratic formula.

$$-15x^2 + 8x + 12 = 0$$

$$x = \frac{-(-8) \pm \sqrt{(-8)^2 - 4(-15)(12)}}{2(-15)} = \frac{-8 \pm \sqrt{64 + 720}}{-30}$$

$$= \frac{-8 \pm \sqrt{784}}{-30} = \frac{-8 \pm 28}{-30} = \frac{-8 + 28}{-30}, \frac{-8 - 28}{-30}$$

$$= \frac{20}{-30}, \frac{-36}{-30} = -\frac{2}{3}, \frac{6}{5}$$

$$-21x^2 + x + 2 = 0$$

$$x = \frac{-(-1) \pm \sqrt{(-1)^2 - 4(-21)(2)}}{2(-21)} = \frac{-1 \pm \sqrt{1 + 168}}{-42}$$

$$= \frac{-1 \pm \sqrt{169}}{-42} = \frac{-1 \pm 13}{-42} = \frac{-1 + 13}{-42}, \frac{-1 - 13}{-42}$$

$$= \frac{12}{-42}, \frac{-14}{-42} = -\frac{2}{7}, \frac{1}{3}$$





Solve for x using the quadratic formula.

$$12x^2 - 2x - 2 = 0$$

$$-6x^2 + 9x + 27 = 0$$



# Answer Key

Solve for x using the quadratic formula.

$$12x^2 - 2x - 2 = 0$$

$$x = \frac{-(-2) \pm \sqrt{(-2)^2 - 4(12)(-2)}}{2(12)} = \frac{2 \pm \sqrt{4 + 96}}{24}$$

$$= \frac{2 \pm \sqrt{100}}{24} = \frac{2 \pm 10}{24} = \frac{2 + 10}{24}, \frac{2 - 10}{24}$$

$$= \frac{12}{24}, \frac{-8}{24} = \frac{1}{2}, -\frac{1}{3}$$

$$-6x^2 + 9x + 27 = 0$$

$$x = \frac{-(-9) \pm \sqrt{(-9)^2 - 4(-6)(27)}}{2(-6)} = \frac{-9 \pm \sqrt{81 + 648}}{-12}$$

$$= \frac{-9 \pm \sqrt{729}}{-12} = \frac{-9 \pm 27}{-12} = \frac{-9 + 27}{-12}, \frac{-9 - 27}{-12}$$

$$= \frac{18}{-12}, \frac{-36}{-12} = -\frac{3}{2}, 3$$



Solve for x using the quadratic formula.

$$4x^2 + 2x - 20 = 0$$

$$-12x^2 + 10x - 2 = 0$$



# Answer Key

Solve for x using the quadratic formula.

$$4x^2 + 2x - 20 = 0$$

$$x = \frac{-(2) \pm \sqrt{(2)^2 - 4(4)(-20)}}{2(4)} = \frac{-2 \pm \sqrt{4 + 320}}{8}$$

$$= \frac{-2 \pm \sqrt{324}}{8} = \frac{-2 \pm 18}{8} = \frac{-2 + 18}{8}, \frac{-2 - 18}{8}$$

$$= \frac{16}{8}, \frac{-20}{8} = 2, -\frac{5}{2}$$

$$-12x^2 + 10x - 2 = 0$$

$$x = \frac{-(10) \pm \sqrt{(10)^2 - 4(-12)(-2)}}{2(-12)} = \frac{-10 \pm \sqrt{100 - 96}}{-24}$$

$$= \frac{-10 \pm \sqrt{4}}{-24} = \frac{-10 \pm 2}{-24} = \frac{-10 + 2}{-24}, \frac{-10 - 2}{-24}$$

$$= \frac{-8}{-24}, \frac{-12}{-24} = \frac{1}{3}, \frac{1}{2}$$



# Maths = standardised Children = **unique**

**Personalised online maths tutoring that goes  
beyond practice and builds your child's  
confidence at school**

**Enrol today**



Let's solve this 