**Using the Quadratic Formula**

$$x=\frac{-b\pm \sqrt{b^{2}-4ac}}{2a}$$

$$7x^{2}+8x-11=0$$

$$a=7 b=8 c=-11$$

$$x=\frac{-b\pm \sqrt{b^{2}-4ac}}{2a}$$

$$x=\frac{-(8)\pm \sqrt{\left(8\right)^{2}-4\left(7\right)(-11)}}{2(7)}$$

$$x=\frac{-8\pm \sqrt{64+308}}{14}$$

$$x=\frac{-8\pm \sqrt{372}}{14}$$

$x=\frac{-8+19.2873…}{14}$$x=\frac{-8-19.2873…}{14}$

$$x=.8062358… x=-1.94909…$$

$$2x^{2}+3x+1=0$$

$$a=2 b=3 c=1$$

$$x=\frac{-b\pm \sqrt{b^{2}-4ac}}{2a}$$

$$x=\frac{-(3)\pm \sqrt{(3)^{2}-4\left(2\right)(1)}}{2(2)}$$

$$x=\frac{-3\pm \sqrt{9-8}}{4}$$

$$x=\frac{-3\pm \sqrt{1}}{4}$$

$x=\frac{-3+1}{4}$$x=\frac{-3-1}{4}$

$$x=-\frac{1}{2} x=-1$$

$$3x^{2}-7x+2=0$$

$$a=3 b=-7 c=2$$

$$x=\frac{-b\pm \sqrt{b^{2}-4ac}}{2a}$$

$$x=\frac{-(-7)\pm \sqrt{(-7)^{2}-4\left(3\right)(2)}}{2(3)}$$

$$x=\frac{7\pm \sqrt{49-24}}{6}$$

$$x=\frac{7\pm \sqrt{25}}{6}$$

$x=\frac{7+5}{6}$$x=\frac{7-5}{6}$

$$x=2 x=\frac{1}{3}$$

Step 7: Solve both new equations

Step 6: Split the formula in two via the + and -

Step 5: Simplify the square root

Step 4: Start simplifying in chunks

1. Simplify the –b
2. Simplify b2
3. Simplify -4\*a\*c
4. Simplify 2a

Step 3: Substitute into the quadratic formula.

Step 2: Define you a, b and c terms.

Step 1: Set your quadratic equal to zero