1. (x+2)²+x=0
(a+b)²= a²+2 a b +b²
(x+2)²
(x)² +2.x.2 + (2)²
x² +4x +4 + x=0
x²+5x+4=0

a=1 b=5 c=4

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

$$x=\frac{-5\pm \sqrt{5²-4.1.4}}{2.1}$$

$$x=\frac{-5\pm \sqrt{25^{}-16}}{2}$$

$$x=\frac{-5\pm \sqrt{9}}{2}$$

$$x=\frac{-5\pm 3}{2}$$

$$x,=\frac{-5-3}{2}$$

$x,=\frac{-8}{2}$ = -4

$$x,,=\frac{-5+3}{2}$$

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

1. 3x²= 2 (x - 1)² + 3

(a-b)² a² - 2 a b +b²

(x-1)²

(x)² - 2.x.(1)+(1)²

x²-2x+1

3x²=x²-2x+1+3

3x²-x²+2x-4=0

2x²+2x-4=0

$$x=\frac{-2\pm \sqrt{2^{2}-4.2.-4}}{2.2}$$

$$x=\frac{-2\pm \sqrt{4+32}}{4}$$

$$x=\frac{-2\pm \sqrt{36}}{4}$$

$$x=\frac{-2\pm 6}{4}$$

$$x=\frac{-2+6}{4}$$

$$x=\frac{-2-6}{4}$$

$$x=\frac{-8}{4}=-2$$

1. x (x+11) + 2(x + 21)= 0

x²+11x+2x+42=0

x²+13x+42=0

$$x=\frac{-13\pm \sqrt{13^{2}-4.1.42}}{\begin{array}{c}2.1\\\end{array}}$$

$$x=\frac{-13\pm \sqrt{169-168}}{\begin{array}{c}2\\\\\end{array}}$$

$$x=\frac{-13\pm \sqrt{1}}{\begin{array}{c}2\\\\\end{array}}$$

$$x=\frac{-13\pm 1}{\begin{array}{c}2\\\\\end{array}}$$

$$x=\frac{-13+1}{\begin{array}{c}2\\\\\end{array}}$$

$x=\frac{-12}{\begin{array}{c}2\\\\\end{array}}$ = -6

$$x=\frac{-13-1}{\begin{array}{c}2\\\\\end{array}}$$

$x=\frac{-14}{\begin{array}{c}2\\\\\end{array}}$ = -7

D)6 (X² - 1) - 14= 5X² + X

6x²-6-14=5x²+x

6x²-5x²-6-14-x=0

x²-20-x=0

$$x=\frac{-(-1)\pm \sqrt{-1^{2}-4.1.-20}}{\begin{array}{c}2.1\\\end{array}}$$

$$x=\frac{1\pm \sqrt{1+80}}{\begin{array}{c}2\\\end{array}}$$

$$x=\frac{1\pm \sqrt{81}}{\begin{array}{c}2\\\end{array}}$$

$$x=\frac{1\pm 9}{\begin{array}{c}2\\\end{array}}$$

$$x=\frac{1+9}{\begin{array}{c}2\\\end{array}}$$

$x=\frac{10}{\begin{array}{c}2\\\end{array}}$ =5

$$x=\frac{1-9}{\begin{array}{c}2\\\end{array}}$$

$x=\frac{-8}{\begin{array}{c}2\\\end{array}}$ = - 4