

$$d) 3x^2 - 5x = 2$$

$$3x^2 - 5x - 2 = 0$$

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

$$(x+3)(2x-2) = (x^2+2x-2x-6)$$

$$x^2+3x-2x-6$$

$$(x^2-3x-2x+6) = 2-5$$

$$(x^2-3x-2x+5)+3=0$$

$$x^2+3x+(x+3)(x-2)+6=2$$

$$x^2+3^2+(3+3)(x-2)$$

$$3x^2-5x-6+6=2$$

$$3x^2-5x+6-2=0$$

$$3x^2-5x+6-2=-6$$

$$3x^2-5x-2+6=0$$

$$3x^2-5x-2+6=0$$

$$3(x^2)-5(x)-2+6=0$$

$$(x-2)(x-3)=2-2x^2$$

$$(x-2)(x-3)=2(x^2+1)$$

$$(x-2)(x-3)+2x^2-2=0$$

$$x^2-3x-2x+6+2x^2-2=0$$

$$x=2; x=3$$

$$3(2)^2-5(2)=12-10=2$$

$$3(1)^2-5=-2$$

$$3(-2)^2-5(-2)=12+10=22$$

$$x=2$$

$$3(4)-5(-1)=12+5=17$$

$$3(4)-5(-1)=12+5=17$$

$$\text{Using Q-Formula } 3x^2-5x=2$$

$$3x^2-5x-2=0$$

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

$$x = \frac{-5 \pm \sqrt{25 + 24}}{6}$$

$$x = \frac{-5 \pm \sqrt{49}}{6}$$

$$3(-1)^2-5(-1)=3(1)+5=8 \neq 2$$

$$3x^2-5x-2=0$$

$$(x-2)(x-2) = (x^2-2x-2x-6) \times 3$$

$$[2^2-2(2)-3(2)-6] \times 3 = 2 = [4-4-6-6] \times 3 = [-12] \times 3 = -36$$

$$-36 \neq 2$$

$$3(x^2)-5x-6-2=0 \quad 3x^2-5x-8=3(4)-10-8=12-10-8=-6$$

$$= -6 \quad (x-3)(x-2)+4+2x^2=3x^2-5x-2$$

$$(x-3)=0 \quad x=3$$

$$(x-2)=0 \quad x=2$$

$$2^2-3(2)-2(2)+8=2$$

$$3(2^2)-3(2)-2(2)+8=10$$

$$3(2^2)-3(2)-2(2)+8=10$$

$$3(3^2)-3(3^2)-2(2)+8=22$$

$$3x^2-2x+3x-6=2$$

$$x^2+x^2+(x+3)(x-2)+6=2$$

$$x^2+x^2+(3-3)(3-2)+6=2$$

$$3x^2-5x+6=2$$

$$3x^2-5x+4=0$$

$$3(2^2)-5(2)+4=6-6=0$$

$$3(3^2)-5(3)+4=16-6=10$$

$$3(3^2)-5(3)+4=16-6=10$$

$$3x^2-5x=2$$

$$(x-2)(x-3)=-2x^2+2$$

$$(x-2)(x-3)=-2(x^2)+2$$

$$(x^2)-5x+4+2x^2=0$$

$$3x^2-5x+4=0$$

$$3(2^2)-5(2)+4=3(4)-10+4=12-6=6$$

$$3(2^2)-5(2)=3(4)-10=12-10=2$$

$$3(4^2)-5(4)=3(16)-20=48-20=28$$

$$3(-1)^2-5(-1)=-3+5=2$$

$$3(2^2)-5(2)=3(4)-10=12-10=2$$

$$3(2^2)+5(2)=0$$

$$3(2^2)+4=0$$

$$x = \frac{-5 \pm \sqrt{5^2 - 4(3)(-2)}}{2(3)}$$

$$x = \frac{-5 \pm \sqrt{25 + 24}}{6}$$

$$x = \frac{-5 \pm \sqrt{49}}{6}$$

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

$$x = \frac{-5+7}{6} = \frac{2}{6} = \frac{1}{3}$$

$$x = \frac{-5-7}{6} = \frac{-12}{6} = -2$$

$$x = 2$$

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