

1

$$-7x^2 + 14x + 21 = 0$$

$$\frac{-(-14) \pm \sqrt{(-14)^2 - 4(-7)(+21)}}{2(-7)}$$

$$\frac{-14 \pm \sqrt{196 - 4 \cdot -147}}{-14}$$

$$\frac{-14 \pm \sqrt{196 + 588}}{-14}$$

$$\frac{-14 \pm \sqrt{784}}{-14}$$

$$\frac{-14 \pm 28}{-14}$$

$$(-1, 3)$$

$$\frac{-14}{-14} + \frac{28}{-14} = -1$$

$$\frac{-14}{-14} - \frac{28}{-14} = 3$$

$$2 \quad 2x^2 - 14x + 24 = 0$$

$$\frac{-(-14) \pm \sqrt{(-14)^2 - 4(2)(+24)}}{2(2)}$$

$$2(2)$$

$$\frac{+14 \pm \sqrt{+196 - 4 + 48}}{+4}$$

$$\frac{+14 \pm \sqrt{+196 - 192}}{+4}$$

$$\frac{+14 \pm \sqrt{+4}}{+4}$$

$$\frac{+14}{4} \quad 2$$

$$\frac{14}{4} - \frac{2}{4} = 3$$

$$(4, 3)$$

$$\frac{14}{4} + \frac{2}{4} = 4$$

DD MM AA

$$3 - 7x^2 + 63 = 0$$

$$\frac{63}{7} \Rightarrow x^2 =$$

$$x^2 - 9 = 0$$

$$x^2 = 9$$

$$x = \sqrt{9}$$

$$x = 3$$

$$+ 3$$

$$- 3$$

$$(-3, 3)$$

$$4 \quad x^2 - 7x - 4 = 0$$

$$\frac{-(-7) \pm \sqrt{(-7)^2 - 4(1)(-4)}}{2(1)}$$

$$\frac{+7 \pm \sqrt{+49 - 4 - 4}}{2}$$

$$\frac{+7 \pm \sqrt{+49 + 16}}{2}$$

$$\left(\frac{+7 \pm \sqrt{65}}{2} \right)$$

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

$$\frac{-(-2) \pm \sqrt{(-2)^2 - 4(1)(-2)}}{2(1)}$$

$$\frac{+2 \pm \sqrt{+4 - 4 - 2}}{2}$$

$$\frac{+2\sqrt{+4} + 8}{+2}$$

$$\frac{+2\sqrt{12}}{2}$$

Factoriza

$$\frac{2 + 2\sqrt{3}}{2}$$

$$\frac{1 + \sqrt{3}}{1}$$

$$(1 + \sqrt{3})$$

$$b) 4x^2 - 24 = 0$$

$$-(-24) \pm \sqrt{(-24)^2 - 4 \cdot 4 \cdot 0}$$

$$\frac{+24 \pm \sqrt{+576}}{2 \cdot (4)} \quad 0$$

$$\frac{+24 \pm \sqrt{576}}{8}$$

$$\frac{+24 \pm 24}{8}$$

$$\frac{24 - 0}{4} = 6$$

$$x^2 = 6 = 0$$

$$x = 6$$

$$x = \sqrt{6}$$
$$(\pm \sqrt{6})$$

$$7 \quad 2x^2 - 6x - 2 = 4x - 3$$

$$2x^2 - 6x - 2 - 4x + 3 = 0$$

$$2x^2 - 10x - 2 + 3$$

$$-6x + -4x$$

$$-10x$$

$$2x^2 - 10x + 1 = 0$$

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

$$2(2)$$

$$\frac{+10 \pm \sqrt{+100 - 8}}{4}$$

$$+4$$

$$\frac{+10 \pm \sqrt{92}}{8}$$

$$\frac{+10 \pm 2\sqrt{23}}{8}$$

$$\frac{2(5 \pm \sqrt{23})}{2}$$

$$\left(\frac{5 \pm \sqrt{23}}{2} \right)$$

$$8 - 14x^2 + 4x + 14 = -6x^2$$

$$-14x^2 + 4x + 14 + 6x^2 = 0$$

$$-8x^2 + 4x + 14 = 0$$

$$-14x^2 + 6x^2$$

$$-8x^2$$

$$-(-4) \pm \sqrt{(-4)^2 - 4(-8)(14)}$$

$$-4 \pm \sqrt{+16 - 4(-112)}$$

$$2(-8)$$

$$\frac{-4 \pm \sqrt{+16 + 448}}{-16}$$

$$-16$$

$$\frac{-4 \pm \sqrt{464}}{-16}$$

$$-16$$

$$\frac{-4 \pm 4\sqrt{29}}{-16}$$

$$-16$$

$$\frac{-1 \pm \sqrt{29}}{4}$$

$$1/6$$

$$\frac{-1 \pm \sqrt{29}}{4}$$

$$\frac{16}{4} = 4$$

Final