

3)

a) i) $12x^2 = 31x + 15$

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

$$\frac{-31x^2 \pm \sqrt{31x^2 - 4x - 15}}{2 \times 12}$$

~~$$\frac{-31 \pm \sqrt{29}}{24}$$~~

$$\frac{31 \pm \sqrt{1801}}{24}$$

$$= 3.06, -0.48$$