

Harry Williams (2004975)

Question three

a)

$$i) \quad \underset{a}{15}x^2 = \underset{b}{14}x + \underset{c}{20}$$

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

~~$x = \frac{-15 \pm \sqrt{15^2 - 4(14)(20)}}{2(15)}$~~

$$x = \frac{-14 \pm \sqrt{14^2 - 4(15)(20)}}{2(15)}$$

$$x = \frac{-14 \pm \sqrt{196 - 1200}}{30}$$

$$x = \frac{-14 \pm \sqrt{1004}}{30}$$

$$x = \frac{-14 \pm \sqrt{31.68}}{30}$$

$$x = \frac{-14 \pm 1.056}{30}$$

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$$x = -14 + 1.056$$

$$x = -14 - 1.056$$

$$x = -12.94$$

$$x = -15.05$$