

total 10 puntos

Guía 5

Ejercicio 9, ítem I

$$10x^2 + 31x - 14 = 0$$

$$a = 10 \checkmark$$

$$b = 31 \checkmark$$

$$c = -14 \checkmark$$

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

$$x = \frac{-31 \pm \sqrt{31^2 + 4 \cdot 10 \cdot 14}}{2 \cdot 10} \checkmark$$

$$x = \frac{-31 \pm \sqrt{961 + 560}}{20}$$

$$x = \frac{-31 \pm \sqrt{1521}}{20}$$

$$x = \frac{-31 \pm 39}{20}$$

$$x_1 = \frac{-31 + 39}{20} = \frac{8}{20} = \frac{2}{5}$$

$$x_2 = \frac{-31 - 39}{20} = \frac{-70}{20} = -\frac{7}{2} \checkmark$$

$$\therefore x_1 = \frac{2}{5} \quad \wedge \quad x_2 = -\frac{7}{2} \checkmark$$

Ejercicio 7, ítem II

$$\frac{2}{3}x + \frac{1}{4} = -\frac{4}{9}x^2$$

$$\frac{4}{9}x^2 + \frac{2}{3}x + \frac{1}{4} = 0 \checkmark$$

$$b^2 - 4ac = \left(\frac{2}{3}\right)^2 - 4 \cdot \frac{4}{9} \cdot \frac{1}{4} \checkmark$$

$$= \frac{4}{9} - \frac{4}{9}$$

$$= 0$$

$$\therefore \Delta = 0 \checkmark$$

$\Rightarrow$ tiene dos soluciones reales e iguales. $\checkmark$