

Answer on Question #69785 – Math – Algebra

Question

$$(10g^2 + 3g - 10) + (2g^2 + g + 7) = 0$$

Solution

$$(10g^2 + 3g - 10) + (2g^2 + g + 7) = 0$$

$$12g^2 + 4g - 3 = 0$$

$$ax^2 + ax + c = 0$$

$$D = b^2 - 4ac$$

$$D = 4^2 - 4 \cdot 12 \cdot (-3) = 160$$

$$g_{1,2} = \frac{-b \pm \sqrt{D}}{2a}$$

$$g_{1,2} = \frac{-4 \pm \sqrt{160}}{2 \cdot 12} = \frac{-4 \pm 4\sqrt{10}}{24} = \frac{-1 \pm \sqrt{10}}{6}$$

Answer: $g_{1,2} = \frac{-1 \pm \sqrt{10}}{6}$.