

1.109
p3

$$\frac{x^2}{9} + \frac{16}{x^2} = \frac{10}{3} \left(\frac{x}{3} - \frac{4}{x} \right)$$

$$A = \left(\frac{x}{3} - \frac{4}{x} \right) \quad | \cdot 10$$

$$A^2 + \frac{8}{3} = \frac{10}{3} A$$

$$3A^2 - 10A + 8 = 0$$

$$A = 2 \rightarrow 2 = \frac{x}{3} - \frac{4}{x} \rightarrow x^2 - 6x - 12 = 0$$

$$A = \frac{4}{3}$$

$$x_{1,2} = \frac{6 \pm \sqrt{84}}{2} = 3 \pm \sqrt{21}$$

$$\downarrow$$
$$\frac{x}{3} - \frac{4}{x} = \frac{4}{3}$$

$$x^2 - 4x - 12 = 0$$

$$\boxed{x_1 = 6}$$
$$\boxed{x_2 = -2}$$