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$$\frac{1}{2} + \frac{4x+3}{8} - \frac{1+12x}{4} = \frac{4-x}{2}$$

$$\frac{4+4x+3-2-24x}{8} \cdot \frac{1}{1} = \frac{16-4x}{8} \cdot \frac{1}{1}$$

$$4+4x+3-2-24x = 16-8x$$

$$4x-24x+4x = 16-4-3+2$$

$$16x = 11$$

$$x = -\frac{11}{16}$$

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$$\frac{1}{4} \cdot \left(\frac{2}{3} + \frac{x-2}{4} \right) - \frac{1}{6} \cdot \left(3 - \frac{x-1}{4} \right) - \frac{1}{3} = 0$$

$$\frac{1}{4} \cdot \left(\frac{8+3x-6}{12} \right) - \frac{1}{6} \cdot \left(\frac{12-1x+1}{4} \right) - \frac{1}{3} = 0$$

$$\frac{1}{4} \cdot \left(\frac{2+3x}{12} \right) - \frac{1}{6} \cdot \left(\frac{13-1x}{4} \right) - \frac{1}{3} = 0$$

$$\frac{2+3x}{48} - \frac{13-1x}{24} - \frac{1}{3} = 0$$

$$\frac{2+3x-26-2x-16}{48} = 0$$

$$2+3x-26+2x-16 = 0$$

$$+3x+2x = 0-2+26+16$$

$$5x = 40$$

$$x = \frac{40}{5} = 8$$