

(A) $\frac{1}{3}(2x-5) = 12$

~~(3) $\frac{2x}{3} - \frac{5}{3} = 12(3)$~~

$2x - 5 = 36$

$\begin{array}{r} 2x - 5 = 36 \\ +5 \quad +5 \\ \hline 2x = 41 \\ \frac{2x}{2} = \frac{41}{2} \\ x = \frac{41}{2} \end{array}$

~~(3) $\frac{1}{3}(2x-5) = 12(3)$~~

$2x - 5 = 36$

(2) $\frac{2}{5}(4x-3) = 10(5)$

$8x - 6 = 50$

$\begin{array}{r} 8x - 6 = 50 \\ +6 \quad +6 \\ \hline 8x = 56 \\ \frac{8x}{8} = \frac{56}{8} \\ x = 7 \end{array}$

$$(3) \quad (20) \frac{(2x+1)}{5} = \frac{(3x+2)(20)}{4}$$

$$\frac{40x}{5} + \frac{20}{5} = \frac{60x}{4} + \frac{40}{4}$$

$$\frac{8x}{1} + 4 = 15x + 10$$

$$4 = 7x + 10$$

$$-10 \quad -10$$

$$\frac{-6}{7} = \frac{7x}{7} \quad (x = -\frac{6}{7})$$

~~$$(20) \frac{(2x+1)}{5} = \frac{(3x+2)(20)}{4}$$~~

$$8x + 4 = 15x + 10$$

$$\frac{2x+1}{5} = \frac{(3x+2)}{4}$$

$$15x + 10 = 8x + 4$$

$$\frac{(-2x+10)}{6} = \frac{(4x+1)}{3}$$

$$24x + 6 = -4x + 30$$

$$+6x \quad +6x$$

$$30x + 6 = 30$$

$$-6 \quad -6$$

$$\frac{30x}{30} = \frac{24}{30}$$

$$x = \frac{24}{30}$$

Special Solutions

Notes

①

$$\boxed{4x + 6 = 4x + 10}$$

$$\begin{array}{r} 4x + 6 = 4x + 10 \\ -4x \quad -4x \\ \hline 6 = 10 \end{array}$$

$$0 \neq 4 \text{ False}$$

NO SOLUTION

$$\boxed{4x + 10 = 4x + 10}$$

$$\textcircled{2} \begin{array}{r} 4x + 10 = 4x + 10 \\ -10 \quad -10 \\ \hline 4x = 4x \end{array}$$

$$\begin{array}{r} 4x = 4x \\ -4x \quad -4x \\ \hline 0 = 0 \end{array}$$

$$0 = 0 \text{ TRUE}$$

IDENTITY

Infinite # of Solutions