Solving Equations

1) multiply both sides by the LCM of the denominators.
2) Get rid of parentheses using the Distributive Axiom.
3) Combine like terms on both sides of the equation
4) Add or subtract to get in the form $ax = b$
5) Divide both side of the equation by the coefficient of the variable (a)

Ex) $6x = 120$

D_6

$\frac{6x}{6} = \frac{120}{6}$

$x = 20$

Ex) $\frac{9}{10}x = 9$

$\cdot \frac{9}{10}$

$\frac{9}{10}x \div \frac{9}{10} = 9 \div \frac{9}{10}$

$\frac{9}{10}x \cdot \frac{10}{9} = 9 \cdot \frac{10}{9}$

$x = 10$

Ex) $5m + m = 36$ C.L.T.

$6m = 36$ D.6

$\frac{6m}{6} = \frac{36}{6}$

$m = 6$

Ex) $16(5x-2)+32=80$ D.A.

$80x-32+32=80$ C.L.T.

$80x=80$ D_{80}

$\frac{80x}{80}=\frac{80}{80}$

$x=1$

Ex) $\frac{x}{5}=\frac{7}{10}$ M_{10}

$10\cdot\frac{x}{5}=\frac{7}{10}\cdot 10$

$2x=7$ D.2

$\frac{2x}{2}=\frac{7}{2}$

$x=\frac{7}{2}$

Ex) $9x+7-6x=12x+4$ C.L.T.

$3x+7=12x+4$ S_{3x}

[illegible]

$3x+7-3x=12x+4-3x$

$7=9x+4$ S_4

$7-4=9x+4-4$

$3=9x$ D_9

$\frac{3}{9}=\frac{9x}{9}$

$\frac{1}{3}=x$

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