Solving Algebraic Equations Containing Fractions

(Deal with Fractions) *(Sheet B)* MrB4math.com

1) $\frac{6}{5}\cdot\frac{5}{6}y = -\frac{2}{\cancel{10}13}\cdot\frac{6}{5}1$

$y = -\frac{12}{13}$

2) $8k + \frac{1}{4} + 2k = \frac{5}{12} + \frac{2}{12}$

$10k + \frac{1}{4} = \frac{7}{12}$

$-\frac{1}{4}$ $-\frac{3}{12}$

$\frac{1}{\cancel{10}}\cdot\frac{\cancel{10}k}{1} = \frac{\cancel{4}2}{\cancel{12}6}\cdot\frac{1}{\cancel{10}5}$

$k = \frac{1}{30}$

3) $-\frac{2}{7} = x + \frac{3}{7}$

$-\frac{3}{7}$ $-\frac{3}{7}$

$-\frac{5}{7} = x$

4) $\frac{3\cdot3}{4\cdot3} + \frac{1}{15}r - \frac{5\cdot2}{6\cdot2} = \frac{8}{15}r$

$-\frac{1}{15}r$ $-\frac{1}{15}r$

$\frac{9}{12} - \frac{10}{12} = \frac{7}{15}r$

$5\ \frac{\cancel{15}}{7}\cdot-\frac{1}{\cancel{12}4} = \frac{7}{\cancel{15}}r\cdot\frac{\cancel{15}}{7}$

$-\frac{5}{28} = r$

5) $\frac{1}{10} - \frac{3\cdot2}{5\cdot2} = \frac{r}{6}$

$\frac{1}{10} - \frac{6}{10} = \frac{r}{6}$

$3\ \frac{\cancel{6}}{1}\cdot-\frac{1}{\cancel{5}\cancel{10}5} = \frac{1}{\cancel{6}}r\cdot\frac{\cancel{6}}{1}$

$-3 = r$

6) $-4\frac{1}{5}x = -7$

$-\frac{5}{21}\cdot-\frac{\cancel{21}}{\cancel{5}}x = -\frac{\cancel{7}1}{1}\cdot-\frac{5}{\cancel{21}3}$

$x = \frac{5}{3}$ or $1\frac{2}{3}$

7) $\frac{7}{7}a - \frac{1}{7} - \frac{1a}{7} = \frac{5}{21}$

$+\frac{1}{7}$ $+\frac{3}{21}$

$\frac{7}{\cancel{6}}\cdot\frac{\cancel{6}}{7}a = \frac{\cancel{8}4}{\cancel{21}3}\cdot\frac{7}{\cancel{6}3}1$

$a = \frac{4}{9}$

8) $\frac{2}{9} - \frac{7}{9} = \frac{3}{8}y + \frac{1\cdot2}{4\cdot2}y$

$\frac{\cancel{8}}{\cancel{5}}\cdot-\frac{1}{\cancel{5}9} = \frac{5}{\cancel{8}}y\cdot\frac{\cancel{8}}{5}$

$-\frac{8}{9} = y$