

$$\begin{aligned}
 \text{L} & & \text{R} \\
 \text{m) } 3m - \frac{1}{2} &= 2(m+1) & 3\left(2\frac{1}{2}\right) - \frac{1}{2} \\
 3m - \frac{1}{2} &= 2m + 2 & 7\frac{1}{2} - \frac{1}{2} \\
 -2m & & -2m \\
 m - \frac{1}{2} &= 2 & \\
 +\frac{1}{2} & +\frac{1}{2} & \\
 \hline
 m &= 2\frac{1}{2}
 \end{aligned}$$

$$\begin{aligned}
 \text{L} & & \text{R} \\
 \text{p) } 2\left(\frac{1}{3} + 2p\right) &= 3p + 2 & 2\left(2\frac{1}{3} + 1\right) \\
 & & 2\left(3\frac{1}{3}\right) \\
 \frac{2}{3} + 4p &= 3p + 2 & \\
 -3p & -3p & \\
 \frac{2}{3} + p &= 2 & \\
 -\frac{2}{3} & -\frac{2}{3} & \\
 p &= 2 - \frac{2}{3} & \\
 p &= \frac{6}{3} - \frac{2}{3} & \\
 p &= \frac{4}{3} &
 \end{aligned}$$

$$\begin{aligned}
 \text{L} & & \text{R} \\
 2\left(\frac{1}{3} + 2\left(\frac{4}{3}\right)\right) & & 3\left(\frac{4}{3}\right) + 2 \\
 2\left(\frac{1}{3} + \frac{8}{3}\right) & & 4 + 2 \\
 2\left(\frac{9}{3}\right) & & 6 \\
 2(3) & & \\
 \hline
 6 & &
 \end{aligned}$$

$$\begin{aligned}
 \text{L} & & \text{R} \\
 \text{n) } -2n + \frac{2}{3} &= -3(3-n) & \\
 -2n + \frac{2}{3} &= -9 + 3n & \\
 +2n & & +2n \\
 \frac{2}{3} &= -9 + 5n & -2\left(\frac{29}{15}\right) + \frac{2}{3} \\
 +9 & +9 & -\frac{58}{15} + \frac{10}{15} \\
 \frac{29}{3} &= 5n & -\frac{48}{15} \\
 \frac{29}{3} &= 5n & -\frac{16}{5} \\
 \div 5 & \div 5 & \\
 \frac{29}{15} &= n &
 \end{aligned}$$

$$\begin{aligned}
 \text{L} & & \text{R} \\
 \text{q) } \frac{2}{5} - 3q &= 2\left(q + \frac{1}{3}\right) & \\
 \frac{2}{5} - 3q &= 2q + \frac{2}{3} & \\
 +3q & +3q & \\
 \frac{2}{5} &= 5q + \frac{2}{3} & \\
 -\frac{2}{3} & -\frac{2}{3} & \\
 \frac{6}{15} - \frac{10}{15} &= 5q & \\
 -\frac{4}{15} &= 5q & \\
 \div 5 & \div 5 & \\
 -\frac{4}{75} &= q & \\
 \hline
 -\frac{4}{75} &= q &
 \end{aligned}$$

$$\begin{aligned}
 \text{L} & & \text{R} \\
 \frac{2}{5} - 3\left(\frac{-4}{75}\right) & & 2\left(\frac{-4}{75} + \frac{1}{3}\right) \\
 \frac{2}{5} + \frac{12}{75} & & 2\left(\frac{-4}{75} + \frac{25}{75}\right) \\
 \frac{30}{75} + \frac{12}{75} & & 2\left(\frac{21}{75}\right) \\
 \frac{42}{75} & & \frac{42}{75} \\
 \hline
 \frac{42}{75} & &
 \end{aligned}$$

$$\begin{aligned}
 \text{L} & & \text{R} \\
 \text{o) } 3 - 2r &= \frac{3}{5} + 0 & \\
 +2r & +2r & \\
 3 &= \frac{3}{5} + 3r & 3 - 2\left(\frac{4}{5}\right) \\
 -\frac{3}{5} & -\frac{3}{5} & 3 - \frac{8}{5} \\
 \frac{12}{5} &= 3r & \frac{15}{5} - \frac{8}{5} \\
 \div 3 & \div 3 & \frac{7}{5} \\
 \frac{4}{5} &= r &
 \end{aligned}$$

$$\begin{aligned}
 \text{L} & & \text{R} \\
 \text{r) } 4r - 5 &= \frac{2}{3} - 2r & \\
 +2r & +2r & \\
 6r - 5 &= \frac{2}{3} & \\
 +5 & +5 & \\
 6r &= 5\frac{2}{3} & \\
 6r &= \frac{17}{3} & \\
 \div 6 & \div 6 & \\
 r &= \frac{17}{18} &
 \end{aligned}$$

$$\begin{aligned}
 \text{L} & & \text{R} \\
 4\left(\frac{17}{18}\right) - 5 & & \frac{2}{3} - 2\left(\frac{17}{18}\right) \\
 \frac{34}{9} - \frac{45}{9} & & \frac{2}{3} - \frac{17}{9} \\
 -\frac{11}{9} & & \frac{6}{9} - \frac{17}{9} \\
 \hline
 -\frac{11}{9} & & -\frac{11}{9}
 \end{aligned}$$

s) $-2(s - \frac{1}{2}) = 3s - 4$

L	R
$-2s + 1 = 3s - 4$	$3(1) - 4$
$+2s$	$3 - 4$
$1 = 5s - 4$	-1
$+4$	\checkmark
$5 = 5s$	
$\div 5$	
<u>$1 = s$</u>	

v) $\frac{2}{3}v + 1 = -2(v + 3)$

L	R
$\frac{2}{3}v + 1 = -2v - 6$	$-2(-\frac{21}{8} + 3)$
$+2v$	$-2(-\frac{21}{8} + \frac{24}{8})$
$2\frac{2}{3}v + 1 = -6$	$-2(\frac{3}{8})$
-1	\checkmark
$2\frac{2}{3}v = -7$	
$\cdot \frac{3}{2}$	
$3v = -7$	
$\div 3$	
$v = -\frac{7}{3}$	

t) $3t - \frac{4}{5} = -2t + 1$

L	R
$3(\frac{9}{25}) - \frac{4}{5} = -2(\frac{9}{25}) + 1$	$3(\frac{9}{25}) - \frac{4}{5}$
$\frac{27}{25} - \frac{20}{25} = -\frac{18}{25} + \frac{25}{25}$	$\frac{27}{25} - \frac{20}{25}$
$\frac{7}{25} = \frac{7}{25}$	\checkmark
$\frac{7}{25} = \frac{7}{25}$	
$\div 7$	
$\frac{1}{25} = \frac{1}{25}$	
$\cdot 25$	
$1 = 1$	
<u>$t = \frac{9}{25}$</u>	

w) $-\frac{1}{4}w - 3 = \frac{1}{3}(2w + 4)$

L	R
$-\frac{1}{4}w - 3 = \frac{2}{3}w + \frac{4}{3}$	$\frac{1}{3}(2(\frac{-76}{13}) + 4)$
$+\frac{1}{4}w$	$\frac{2}{3}(-\frac{152}{13} + \frac{52}{13})$
$-3 = \frac{2}{3}w + \frac{4}{3}$	$\frac{2}{3}(-\frac{100}{13})$
$-\frac{4}{3}$	\checkmark
$-\frac{13}{3} = \frac{2}{3}w$	
$\cdot \frac{3}{2}$	
$-\frac{13}{2} = w$	

u) $-2u - 2 = u + 1$

L	R
$-2u - 2 = u + 1$	$-2(-1) - 2$
$-2 = 3u + 1$	$(-1) + 1$
-1	$2 - 2$
$-3 = 3u$	0
$\div 3$	\checkmark
$-1 = u$	
<u>$-1 = u$</u>	

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

L	R
$-3x - 3 = \frac{2}{3}x - 2$	$2(\frac{-2}{17}) - 2$
$+3x$	$\frac{2}{17}(-\frac{34}{17}) - 2$
$-3 = \frac{2}{3}x - 2$	$-\frac{2}{17} - \frac{34}{17}$
$+2$	$-\frac{36}{17}$
$-1 = \frac{2}{3}x$	\checkmark
$\cdot \frac{3}{2}$	
$-\frac{3}{2} = x$	
<u>$-\frac{3}{2} = x$</u>	