

1.4

$$\begin{aligned}
 1) \quad \frac{3}{5}(1+p) &= \frac{21}{20} \\
 \cancel{4}(\cancel{20})\frac{3}{5} + \cancel{4}(\cancel{20})\frac{3}{5}p &= \frac{21}{\cancel{20}}(\cancel{20}) \\
 12 + 12p &= 21 \\
 \underline{-12} \quad \underline{-12} \\
 \frac{12p}{12} &= \frac{9}{12} \\
 p &= \frac{3}{4}
 \end{aligned}$$

$$\begin{aligned}
 11) \quad \frac{3}{2}\left(\frac{7}{3}n+1\right) &= \frac{3}{2} \\
 \cancel{(2)}\frac{7}{\cancel{2}}n + \cancel{(2)}\frac{3}{\cancel{2}} &= \frac{3}{\cancel{2}}(\cancel{2}) \\
 7n + 3 &= 3 \\
 \underline{-3} \quad \underline{-3} \\
 \frac{7n}{7} &= \frac{0}{7} \\
 n &= 0
 \end{aligned}$$

$$\begin{aligned}
 3) \quad 0 &= -\frac{5}{4}x - \frac{6}{5} \\
 (4)0 &= \cancel{(4)}\left(-\frac{5}{\cancel{4}}x\right) + \frac{3}{\cancel{2}}(\cancel{4})^2 \\
 0 &= -5x + 6 \\
 \underline{-6} \quad \underline{-6} \\
 \frac{-6}{-5} &= \frac{-5x}{-5} \\
 \frac{6}{5} &= x
 \end{aligned}$$

$$\begin{aligned}
 13) \quad -a - \frac{5}{4}\left(-\frac{8}{3}a+1\right) &= -\frac{19}{4} \\
 -a(12) + \cancel{(12)}\frac{10}{\cancel{3}}a - \cancel{(12)}\frac{5}{\cancel{4}} &= -\frac{19}{\cancel{4}}(\cancel{12})^3 \\
 -12a + 40a - 15 &= -57 \\
 28a - 15 &= -57 \\
 \underline{+15} \quad \underline{+15} \\
 \frac{28a}{28} &= \frac{-42}{28} \\
 a &= -\frac{3}{2}
 \end{aligned}$$

$$\begin{aligned}
 5) \quad \cancel{6}(\cancel{24})\frac{3}{\cancel{4}} - \cancel{6}(\cancel{24})\frac{5}{\cancel{4}}m &= \frac{113}{\cancel{24}}(\cancel{24}) \\
 18 - 30m &= 113 \\
 \underline{-18} \quad \underline{-18} \\
 -\frac{30m}{-30} &= \frac{95}{-30} \\
 m &= -\frac{19}{6}
 \end{aligned}$$

$$\begin{aligned}
 15) \quad \frac{55}{6} &= -\frac{5}{2}\left(\frac{3}{2}p - \frac{5}{3}\right) \\
 \cancel{(12)}\frac{55}{\cancel{6}} &= \cancel{(12)} - \frac{15}{\cancel{4}}p + \frac{25}{\cancel{6}}(\cancel{12})^2 \\
 110 &= -45p + 50 \\
 \underline{-50} \quad \underline{-50} \\
 \frac{60}{-45} &= \frac{-45p}{-45} \\
 -\frac{4}{3} &= p
 \end{aligned}$$

$$\begin{aligned}
 7) \quad \frac{635}{72} &= -\frac{5}{2}\left(-\frac{11}{9} + x\right) \\
 \cancel{(72)}\frac{635}{\cancel{72}} &= \cancel{(72)}\frac{55}{\cancel{8}} - \frac{5}{\cancel{2}}x(\cancel{72})^{36} \\
 635 &= 495 - 180x \\
 \underline{-495} \quad \underline{-495} \\
 \frac{140}{-180} &= \frac{-180x}{-180} \\
 -\frac{7}{9} &= x
 \end{aligned}$$

$$\begin{aligned}
 17) \quad \frac{16}{9} &= -\frac{4}{3}\left(-\frac{4}{3}n - \frac{4}{3}\right) \\
 \cancel{(9)}\frac{16}{\cancel{9}} &= \cancel{(9)}\frac{16}{\cancel{9}}n + \frac{16}{\cancel{9}}(\cancel{9}) \\
 16 &= 16n + 16 \\
 \underline{-16} \quad \underline{-16} \\
 \frac{0}{16} &= \frac{16n}{16} \\
 0 &= n
 \end{aligned}$$

$$\begin{aligned}
 9) \quad (5)2b + \cancel{(5)}\frac{9}{\cancel{5}} &= -\frac{11}{\cancel{5}}(\cancel{5}) \\
 10b + 9 &= -11 \\
 \underline{-9} \quad \underline{-9} \\
 \frac{10b}{10} &= \frac{-20}{10} \\
 b &= -2
 \end{aligned}$$

$$\begin{aligned}
 19) \quad -\frac{5}{8} &= \frac{5}{4} \left(r - \frac{3}{2} \right) \\
 -\frac{5}{8}(\cancel{8}) &= (\cancel{8})\frac{5}{4}r - \frac{15}{8}(\cancel{8}) \\
 -5 &= 10r - 15 \\
 \underline{+15} \quad \quad \quad \underline{+15} \\
 \frac{10}{10} &= \frac{10r}{10} \\
 1 &= r
 \end{aligned}$$

$$\begin{aligned}
 21) \quad -\frac{11}{3} + \frac{3}{2}b &= \frac{5}{2} \left(b - \frac{5}{3} \right) \\
 -\frac{11}{3}(\cancel{6}) + (\cancel{6})\frac{3}{2}b &= (\cancel{6})\frac{5}{2}b - \frac{25}{6}(\cancel{6}) \\
 -22 + 9b &= 15b - 25 \\
 \underline{-9b} \quad \quad \quad \underline{-9b} \\
 -22 &= 6b - 25 \\
 \underline{+25} \quad \quad \quad \underline{+25} \\
 \frac{3}{6} &= \frac{6b}{6} \\
 \frac{1}{2} &= b
 \end{aligned}$$

$$\begin{aligned}
 23) \quad -\left(-\frac{5}{2}x - \frac{3}{2}\right) &= -\frac{3}{2} + x \\
 (\cancel{2})\frac{5}{2}x + (\cancel{2})\frac{3}{2} &= -\frac{3}{2}(\cancel{2}) + (2)x \\
 5x + 3 &= -3 + 2x \\
 \underline{-2x} \quad \quad \quad \underline{-2x} \\
 3x + 3 &= -3 \\
 \underline{-3} \quad \quad \quad \underline{-3} \\
 \frac{3x}{3} &= \frac{-6}{3} \\
 x &= -2
 \end{aligned}$$

$$\begin{aligned}
 25) \quad (\cancel{16})\frac{45}{16} + (\cancel{16})\frac{3}{2}n &= (\cancel{16})\frac{7}{4}n - \frac{19}{16}(\cancel{16}) \\
 45 + 24n &= 28n - 19 \\
 \underline{-24n} \quad \quad \quad \underline{-24n} \\
 45 &= 4n - 19 \\
 \underline{+19} \quad \quad \quad \underline{+19} \\
 \frac{64}{4} &= \frac{4n}{4} \\
 16 &= n
 \end{aligned}$$

$$\begin{aligned}
 27) \quad \frac{3}{2} \left(v + \frac{3}{2} \right) &= -\frac{7}{4}v - \frac{19}{6} \\
 \frac{3}{2}(\cancel{12})\frac{3}{2}v + \frac{3}{2}(\cancel{12})\frac{3}{2} &= -\frac{7}{4}v(\cancel{12}) - \frac{19}{6}(\cancel{12}) \\
 18v + 27 &= -21v - 38 \\
 \underline{+21v} \quad \quad \quad \underline{+21v} \\
 39v + 27 &= -38 \\
 \underline{-27} \quad \quad \quad \underline{-27} \\
 \frac{39v}{39} &= \frac{-65}{39} \\
 v &= -\frac{5}{3}
 \end{aligned}$$

$$\begin{aligned}
 29) \quad \frac{47}{9} + \frac{3}{2}x &= \frac{5}{3} \left(\frac{5}{2}x + 1 \right) \\
 (\cancel{18})\frac{47}{9} + (\cancel{18})\frac{3}{2}x &= (\cancel{18})\frac{25}{6}x + (\cancel{18})\frac{5}{3} \\
 94 + 27x &= 75x + 30 \\
 \underline{-27x} \quad \quad \quad \underline{-27x} \\
 94 &= 48x + 30 \\
 \underline{-30} \quad \quad \quad \underline{-30} \\
 \frac{64}{48} &= \frac{48x}{48} \\
 \frac{4}{3} &= x
 \end{aligned}$$