



Solve each equation.

$$1) -1\frac{7}{8}\left(-2\frac{5}{7}x - \frac{11}{9}\right) = \frac{5069}{1680} - 2\frac{1}{6}x$$

$$2) \frac{4}{9}\left(\frac{1}{10}r + \frac{3}{2}\right) = -7\frac{23}{24} + 2\frac{3}{5}r$$

$$3) -\frac{913}{105} + 2\frac{5}{9}n = -4\left(n + \frac{34}{7}\right) - \frac{3}{5}n$$

$$4) -\frac{7}{2}\left(\frac{19}{4}m + 1\frac{1}{6}\right) + 6\frac{5}{8}m = -3\frac{2}{3}m - 13\frac{7}{12}$$

$$5) -6\frac{19}{28} + \frac{2}{3}b = -\frac{13}{7}\left(b - 1\frac{1}{2}\right)$$

$$6) \frac{5}{7}\left(v - 3\frac{1}{2}\right) = -\frac{101}{882} + 4\frac{8}{9}v$$

$$7) 2\frac{1}{9}\left(1\frac{8}{9}x - 1\frac{5}{8}\right) = 4\frac{5}{9}x - 6\frac{709}{1944}$$

$$8) -\frac{95}{108} - \frac{5}{4}k = -\frac{1}{3}\left(\frac{49}{10}k - 3\frac{3}{4}\right)$$

$$9) \frac{10}{3} + \frac{1}{4}\left(-\frac{5}{4}a + 1\frac{1}{3}\right) = 2\frac{7}{9}a - 8\frac{155}{864}$$

$$10) 1\frac{13}{15} + 2n = \frac{1}{9}\left(\frac{3}{2}n - 6\right) + \frac{7}{10}$$

$$11) 1\frac{1}{8}p - \frac{9351}{400} = -5\left(p + 3\frac{3}{8}\right) - 1\frac{1}{10}p$$

$$12) -13\frac{5}{8} + \frac{1}{2}x = -5\left(x + \frac{4}{5}\right)$$

$$13) 3\frac{3}{10}\left(5\frac{2}{3}n + 1\right) = 5\frac{1}{100} + 1\frac{3}{5}n$$

$$14) 5\frac{1}{2}\left(-2m + \frac{17}{10}\right) = -1\frac{2}{3}m + 40\frac{83}{180}$$

$$15) 1\frac{2}{3}p - \frac{101}{84} = \frac{4}{3}\left(1\frac{5}{8}p - \frac{5}{7}\right)$$

$$16) -9 + \frac{6}{7}\left(2\frac{1}{5}x + \frac{2}{7}\right) = 18\frac{2231}{5880} - 2\frac{5}{6}x$$

$$17) -1\frac{1}{2}\left(-9\frac{2}{3}n - 2\frac{1}{3}\right) = \frac{164}{21} + 1\frac{4}{7}n$$

$$18) -2\frac{251}{320} - 3\frac{9}{10}b = -2\frac{1}{4}\left(1\frac{1}{4}b + \frac{8}{5}\right)$$

$$19) 1\frac{2}{3}\left(\frac{5}{7}r + 1\right) = -\frac{317}{126} + 2r$$

$$20) -3\frac{107}{810} + 3\frac{2}{5}x = -1\frac{2}{9}\left(4\frac{1}{4}x + 1\right)$$

$$21) -1\frac{7}{9}\left(n + 5\frac{1}{2}\right) - \frac{6}{7} = 4\frac{3}{4}n - 11\frac{101}{224}$$

$$22) 3\left(\frac{10}{9}a - 3\frac{7}{9}\right) = -12\frac{3}{5} + \frac{4}{5}a$$

$$23) \frac{20}{7} + 3\frac{3}{7}\left(-2\frac{5}{8}x - \frac{1}{2}\right) = 2\frac{3}{7}x + \frac{1352}{63}$$

$$24) 3\frac{7}{8}v + 44\frac{97}{120} = 5\frac{5}{6}v + 2\left(2\frac{5}{6}v + \frac{4}{5}\right)$$

$$25) -5\frac{331}{630} + \frac{6}{7}k = -\frac{1}{5}\left(k - \frac{13}{9}\right)$$

$$26) \frac{19}{10}\left(2\frac{1}{6}x + \frac{1}{2}\right) = 4\frac{3}{5}x - \frac{119}{180}$$

$$27) 5\frac{4}{5}\left(\frac{19}{9}n - \frac{5}{2}\right) - \frac{2}{3}n = 19\frac{79}{90} - \frac{7}{10}n$$

$$28) -1\frac{1}{3} + \frac{1}{2}\left(p + \frac{1}{4}\right) = -\frac{281}{168} - \frac{3}{7}p$$

$$29) -\frac{7}{3}\left(1\frac{1}{2}x + 1\right) = 4\frac{6}{7}x - 11\frac{130}{147}$$

$$30) -2\left(1\frac{2}{3}n + 4\frac{5}{7}\right) = -18\frac{55}{84} + 3\frac{1}{8}n$$

1) $\left\{\frac{1}{10}\right\}$

5) $\left\{3\frac{3}{4}\right\}$

9) $\left\{3\frac{5}{6}\right\}$

13) $\left\{\frac{1}{10}\right\}$

17) $\left\{\frac{1}{3}\right\}$

21) $\left\{\frac{1}{8}\right\}$

25) $\left\{5\frac{1}{2}\right\}$

29) $\left\{1\frac{1}{7}\right\}$

2) $\left\{3\frac{3}{8}\right\}$

6) $\left\{-\frac{4}{7}\right\}$

10) $\{-1\}$

14) $\left\{-3\frac{1}{3}\right\}$

18) $\left\{\frac{3}{4}\right\}$

22) $\left\{-\frac{1}{2}\right\}$

26) $\left\{3\frac{1}{3}\right\}$

30) $\left\{1\frac{3}{7}\right\}$

3) $\left\{-1\frac{1}{2}\right\}$

7) $\left\{5\frac{1}{6}\right\}$

11) $\left\{\frac{9}{10}\right\}$

15) $\left\{-\frac{1}{2}\right\}$

19) $\left\{5\frac{1}{6}\right\}$

23) $\left\{-1\frac{7}{9}\right\}$

27) $\left\{2\frac{4}{5}\right\}$

4) $\left\{1\frac{1}{2}\right\}$

8) $\left\{5\frac{5}{9}\right\}$

12) $\left\{1\frac{3}{4}\right\}$

16) $\left\{5\frac{3}{4}\right\}$

20) $\left\{\frac{2}{9}\right\}$

24) $\left\{5\frac{2}{3}\right\}$

28) $\left\{-\frac{1}{2}\right\}$