

Solve each equation.

1) $-(5a - 4) = -11 - 5(1 + 2a)$

2) $-7b + 8(b - 2) = -8(2 + 4b) - 6b$

3) $11 - 3(n + 8) = -n - 3(2n - 1)$

4) $11x + 2 + 2 - 3x = -8(11x - 2) + 12(1 + 6x)$

5) $3(8p - 8) - 8(p + 1) = 7 - 12p + p - 12$

6) $4n + n = 10(n - 12) + 3(12n - 1)$

$$7) -9(x - 12) = -6(2x - 8)$$

$$8) 4(-3 - 8x) = 4(3 - 10x)$$

$$9) -7(1 - 2v) = -(v - 8)$$

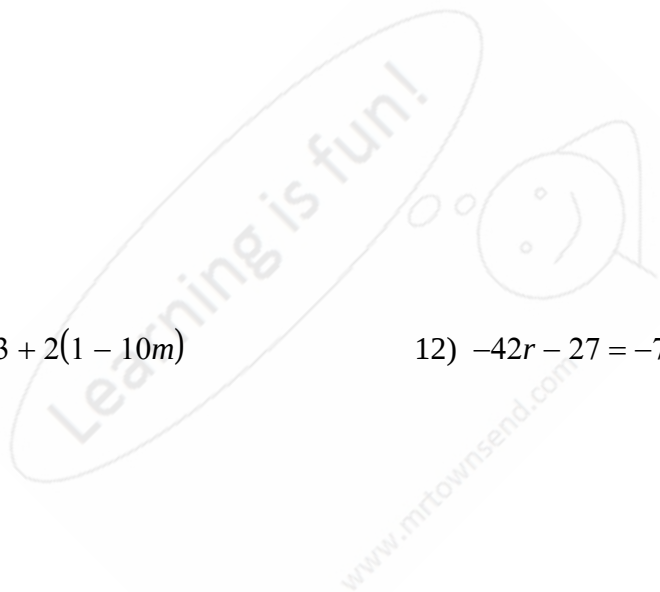
$$10) -10(1 - 5n) - 2 = 9(6n - 4)$$

$$11) -7 - 2(2 + 2m) = 3 + 2(1 - 10m)$$

$$12) -42r - 27 = -7(-8 + 6r)$$

$$13) \frac{17}{11} - \frac{7}{11}\left(b - \frac{5}{8}\right) = -\frac{2}{5}\left(-2b + \frac{7}{9}\right)$$

$$14) -\frac{10}{9}\left(\frac{9}{11}n + \frac{5}{3}\right) - \frac{3}{2} = -\frac{7}{6} - \frac{1}{2}\left(n + \frac{47}{12}\right)$$



$$15) -\left(r + \frac{7}{2}\right) = \frac{33}{10}\left(\frac{1}{2}r + 1\right)$$

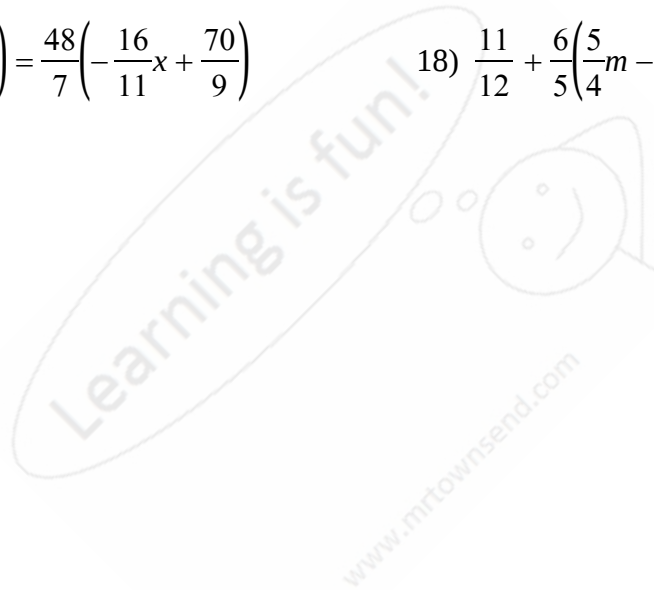
$$16) \frac{5}{8}b - 2b = -\frac{9}{5}\left(b + \frac{50}{9}\right) - 2\left(\frac{5}{8}b + \frac{9}{11}\right)$$

$$17) -\frac{5}{12} - \frac{8}{9}\left(\frac{3}{7}x - \frac{7}{4}\right) = \frac{48}{7}\left(-\frac{16}{11}x + \frac{70}{9}\right)$$

$$18) \frac{11}{12} + \frac{6}{5}\left(\frac{5}{4}m - 5\right) = \frac{17}{12}\left(m - \frac{8}{7}\right)$$

$$19) -\frac{23}{10}n + \frac{48}{11}\left(-\frac{1}{3}n - 3\right) = 11\left(n + \frac{31}{9}\right) + \frac{37}{12}$$

$$20) -\frac{13}{6}\left(x + \frac{7}{4}\right) = \frac{21}{11}\left(\frac{29}{8}x + \frac{2}{5}\right)$$



$$21) \frac{1}{10} \left(\frac{16}{3}n + \frac{61}{9} \right) = -\frac{2}{5} \left(\frac{8}{11}n + 12 \right)$$

$$22) \frac{3}{2} \left(-\frac{33}{10}p + \frac{4}{3} \right) - \frac{1}{11} \left(\frac{7}{11}p - \frac{1}{10} \right) = 2p + \frac{3}{2} + \frac{49}{12}p + \frac{21}{8}$$

$$23) \frac{29}{8} \left(\frac{34}{5}k + \frac{1}{2} \right) = \frac{56}{11} \left(-\frac{1}{2}k + 1 \right)$$

$$24) -\frac{1}{2} \left(-\frac{4}{9}x - \frac{1}{4} \right) = 2 \left(\frac{3}{2}x + \frac{4}{5} \right)$$

Answers to

1) $\{-4\}$

5) $\{1\}$

9) $\{1\}$

13) $\left\{\frac{113}{72}\right\}$

17) $\left\{\frac{144683}{26592}\right\}$

21) $\left\{-\frac{319}{48}\right\}$

2) $\{0\}$

6) $\{3\}$

10) $\{6\}$

14) $\left\{-\frac{539}{972}\right\}$

18) $\left\{\frac{291}{7}\right\}$

22) $\left\{-\frac{1617}{8476}\right\}$

3) $\{4\}$

7) $\{-20\}$

11) $\{1\}$

15) $\left\{-\frac{136}{53}\right\}$

19) $\left\{-\frac{107045}{29214}\right\}$

23) $\left\{\frac{2885}{23932}\right\}$

4) $\{1\}$

8) $\{3\}$

12) No solution.

16) $\left\{-\frac{5120}{737}\right\}$

20) $\left\{-\frac{6013}{11995}\right\}$

24) $\left\{-\frac{531}{1000}\right\}$

