

## Year 7-8 Linear Equations

### Question 1 – One Step Equations

Simplify the following:

a. $x + 5 = 11$	b. $a + 5 = 12$
c. $t - 4 = 5$	d. $y - 3 = 18$
e. $5b = 25$	f. $8t = 48$
g. $\frac{x}{5} = 4$	h. $\frac{k}{7} = 6$
i. $d - 3 = -5$	j. $-7c = -35$
k. $\frac{t}{-9} = 4$	l. $\frac{m}{9} = -5$

**Question 2 – Two Step Equations**

Simplify the following:

a. $5x + 3 = 13$	b. $2n + 7 = 15$
c. $3t - 5 = 7$	d. $4b - 2 = 14$
e. $\frac{2g}{3} = 8$	f. $\frac{c-3}{4} = 9$
g. $\frac{g}{2} - 3 = 7$	h. $\frac{p+6}{3} = 4$
i. $2z - 4.2 = 8$	j. $8y - 4 = -12$
k. $\frac{m-2}{-3} = 4$	l. $-5w - 11 = -26$

**Question 3 – Three Step Equations with Pronumeral on Both Sides**

Simplify the following:

a. $3a - 6 = a + 4$	b. $4x - 10 = 2x + 4$
c. $4b + 2 = 6b - 10$	d. $f + 3 = 3f - 9$
e. $2x + 7 = 3x - 10$	f. $4 - y = 5 - 2y$
g. $5q - 3 = 2q + 6$	h. $2p - 21 = 8p - 3$
i. $\frac{3k}{2} + 2 = 8$	j. $4u + 1 = 3u - 4$
k. $-3y - 4 = -2y - 6$	l. $10 = 5 + \frac{5t}{3}$

**Question 4 – Equations with Brackets**

Simplify the following:

a. $2(x + 3) = 8$	b. $3(m + 1) = 9$
c. $5(a - 2) = 10$	d. $4(n - 3) = 4$
e. $3(2x + 1) = 15$	f. $5(2l - 3) = 35$
g. $-2(z - 4) = 22$	h. $7(x + 3) = -14$
m. $\frac{7t}{3} = 2(t - 2)$	i. $6(x - 3) = 4(x - 2)$
j. $4(x + 2) + x + 12 = 0$	k. $4(a - 5) - 3(1 - a) = 9 - a$