**Solving Linear Equations with Brackets GREEN**

**Question 1: solve the following equations**

a. 3 (x + 4) = 27 b. 2 (2d + 3) = 34

c. 5 (5x + 1) = 105 d. 4 (x + 2) = 40

e. 10 (7x – 5) = 300 f. 3 (9 – 2b) = 3

g. 4 (5c + 15) = 20 h. 5 (6y – 2) = 20

**Question 2: solve the following equations**

a. 6 (3x + 6) = 4 (5x – 2) b. 5 (a + 3) = 4 (2a + 3)

c. 3 (2y + 1) = 5 (y + 2) d. 5 (2x + 3) = 3 (3x + 5)

e. 3 (6x + 5) = 4 (4x + 5) f. 2 (5n + 4) = 2 (6n – 6)

g. 5 (a + 4) = 3 (a + 6) h. 3 (5x – 1) = 2 (7x + 2)

**Question 3: solve the following equations**

a. 3 (2x + 1) + 2 (4x + 2) = 35 b. 2 (x + 3) + 3 (x + 1) = 24

c. 4 (3x – 2) + 8 (x + 1) = 100 d. 6 (x + 2) + 4 (3 – x) = 30

e. 5 (2x + 3) + 2 (5x + 1) = 37 f. 5 (2x – 1) + 2 (x + 5) = 5

g. 2 (4x + 3) + 3 (2x – 1) = 31 h. 3 (x + 1) + 7 (x + 3) = 64

**Solving Linear Equations with Brackets AMBER**

**Question 1: solve the following equations** – Hint: Start by expanding the brackets.

a. 3 (x + 4) = 27 b. 2 (2d + 3) = 34

c. 5 (5x + 1) = 105 d. 4 (x + 2) = 40

e. 10 (7x – 5) = 300 f. 3 (9 – 2b) = 3

g. 4 (5c + 15) = 20 h. 5 (6y – 2) = 20

**Question 2: solve the following equations** – Hint: Start by expanding the brackets, then eliminate the smallest variable.

a. 6 (3x + 6) = 4 (5x – 2) b. 5 (a + 3) = 4 (2a + 3)

c. 3 (2y + 1) = 5 (y + 2) d. 5 (2x + 3) = 3 (3x + 5)

e. 3 (6x + 5) = 4 (4x + 5) f. 2 (5n + 4) = 2 (6n – 6)

g. 5 (a + 4) = 3 (a + 6) h. 3 (5x – 1) = 2 (7x + 2)

**Question 3: solve the following equations** – Hint: Start by expanding the brackets, then collect like terms on the left-hand side.

a. 3 (2x + 1) + 2 (4x + 2) = 35 b. 2 (x + 3) + 3 (x + 1) = 24

c. 4 (3x – 2) + 8 (x + 1) = 100 d. 6 (x + 2) + 4 (3 – x) = 30

e. 5 (2x + 3) + 2 (5x + 1) = 37 f. 5 (2x – 1) + 2 (x + 5) = 5

g. 2 (4x + 3) + 3 (2x – 1) = 31 h. 3 (x + 1) + 7 (x + 3) = 64

**Solving Linear Equations with Brackets RED**

**Question 1: solve the following equations** – Hint: Start by expanding the brackets.

a. 3 (x + 4) = 27 b. 2 (2d + 3) = 34

 3x + 12 = 27

 -12 -12

c. 5 (5x + 1) = 105 d. 4 (x + 2) = 40

e. 10 (7x – 5) = 300 f. 3 (9 – 2b) = 3

g. 4 (5c + 15) = 20 h. 5 (6y – 2) = 20

**Question 2: solve the following equations** – Hint: Start by expanding the brackets, then eliminate the smallest variable.

a. 6 (3x + 6) = 4 (5x – 2) b. 5 (a + 3) = 4 (2a + 3)

 18x + 36 = 20x - 8

c. 3 (2y + 1) = 5 (y + 2) d. 5 (2x + 3) = 3 (3x + 5)

e. 3 (6x + 5) = 4 (4x + 5) f. 2 (5n + 4) = 2 (6n – 6)

g. 5 (a + 4) = 3 (a + 6) h. 3 (5x – 1) = 2 (7x + 2)

**Question 3: solve the following equations** – Hint: Start by expanding the brackets, then collect like terms on the left-hand side.

a. 3 (2x + 1) + 2 (4x + 2) = 35 b. 2 (x + 3) + 3 (x + 1) = 24

 6x + 3 + 8x + 4 = 35

c. 4 (3x – 2) + 8 (x + 1) = 100 d. 6 (x + 2) + 4 (3 – x) = 30

e. 5 (2x + 3) + 2 (5x + 1) = 37 f. 5 (2x – 1) + 2 (x + 5) = 5

g. 2 (4x + 3) + 3 (2x – 1) = 31 h. 3 (x + 1) + 7 (x + 3) = 64