**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 unknown.

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. $2(2d+3)=34$

 $3x+12=27$ $4d+$ $=$

 $-12$ $-12$

 $3x=$

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 unknown.

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

 $18x+36=20x-8$ $5a+15=8a+12$

 $-18x$ $-18x$

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. $2(x+3)+3(x+1)=24$

 $6x+3+8x+4=35$ $2x+6+$

 $14x+$ $=35$

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. $3(x+1)+7(x+3)=64$