



Name -----

Gr. 7 / A

Subject/ Math.

Revision sheet

**Model Answer****Q.1) Simplify each expression.**

1)  $10x - 8x + 2 + 10$

**$2x + 12$**

2)  $3a + 7 + 2(3 + a)$

**$5a + 13$**

3)  $3(m - 5) + m$

**$4m - 15$**

4)  $2s + 10 - 7s - 8 + 3s - 7$

**$-2s - 5$**

5)  $8c - 4 - 2c + 5$

**$6c + 1$**

6)  $-4 + 7z + 3 - 2z$

**$5z - 1$**

7)  $15 + 4(5y - 10)$

**$20y - 25$**

8)  $2d + 17 - 3 - 2d + 4d$

**$4d + 14$**

9)  $12n - 8 - 2n + 10 - 4$

**$10n - 2$**

10)  $8(2k + 1 + 3k)$

**$40k + 8$**

11)  $4(2b + 2) - 3$

**$8b + 5$**

12)  $-4 + 8p - 6p - 5 + 20p$

**$22p - 9$**

**Q.2) Factor each expression.**

1.  $3x + 15$   
 $3(x + 5)$

2.  $8y - 72$   
 $8(y - 9)$

3.  $9a + 18$   
 $9(a + 2)$

4.  $3b - 27$   
 $3(b - 9)$

5.  $5c + 40$   
 $5(c + 8)$

6.  $9a + 18$   
 $9(a + 2)$

7.  $6c + 18$   
 $6(c + 3)$

8.  $8c - 8$   
 $8(c - 1)$

9.  $5x - 10$   
 $5(x - 2)$

10.  $2b - 16$   
 $2(b - 8)$

11.  $8b + 72$   
 $8(b + 9)$

12.  $7c - 35$   
 $7(c - 5)$

13.  $5x - 15$   
 $5(x - 3)$

14.  $6a - 48$   
 $6(a - 8)$

15.  $3a - 6$   
 $3(a - 2)$

16.  $9c - 63$   
 $9(c - 7)$

17.  $3z + 9$   
 $3(z + 3)$

18.  $6b - 12$   
 $6(b - 2)$

19.  $2y + 18$   
 $2(y + 9)$

20.  $3b - 6$   
 $3(b - 2)$

21.  $3x + 24$   
 $3(x + 8)$

22.  $9x - 18$   
 $9(x - 2)$

23.  $2c + 16$   
 $2(c + 8)$

24.  $7b - 28$   
 $7(b - 4)$

25.  $7x - 56$   
 $7(x - 8)$

26.  $8z - 56$   
 $8(z - 7)$

27.  $7z - 28$   
 $7(z - 4)$

28.  $9b + 27$   
 $9(b + 3)$

29.  $4b + 24$   
 $4(b + 6)$

30.  $6c + 36$   
 $6(c + 6)$

**Q.3) Solve each equation.**

a)

1)  $10 = z + 6$

**$z = 4$**

2)  $8y = 48$

**$y = 6$**

3)  $q - 12 = 1$

**$q = 13$**

4)  $18 = \frac{a}{2}$

**$a = 36$**

5)  $\frac{r}{3} = 7$

**$r = 21$**

6)  $11 = m - 4$

**$m = 15$**

7)  $t - 19 = 2$

**$t = 21$**

8)  $1 + s = 3$

**$s = 2$**

9)  $24 = 4c$

**$c = 6$**

10)  $\frac{v}{5} = 9$

**$v = 45$**

b)

1)  $9c + 1 = 10$

**$c = 1$**

3)  $8 = 3a - 4$

**$a = 4$**

5)  $13 + 7x = 27$

**$x = 2$**

7)  $\frac{n - 31}{4} = 2$

**$n = 39$**

9)  $42 + 5t = 8t$

**$t = 14$**

2)  $6y - 5 = 7$

**$y = 2$**

4)  $\frac{m}{5} + 9 = 11$

**$m = 10$**

6)  $17 - q = 6$

**$q = 11$**

8)  $1 + 2r = 35$

**$r = 17$**

10)  $4p - 3 = 17$

**$p = 5$**

**Q.4) Solve each inequality and graph the solution.**

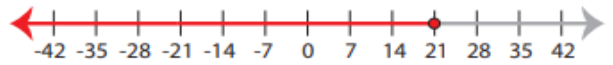
1)  $x - 2 > 4$

**$x > 6$**



2)  $\frac{x}{3} \leq 7$

**$x \leq 21$**



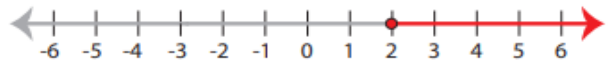
3)  $6x < 30$

**$x < 5$**



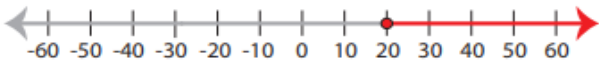
4)  $x + 9 \geq 11$

**$x \geq 2$**



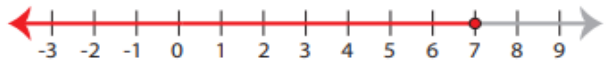
5)  $\frac{x}{2} \geq 10$

**$x \geq 20$**



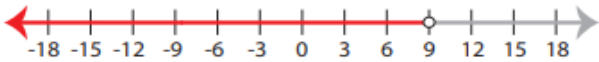
6)  $x - 5 \leq 2$

**$x \leq 7$**



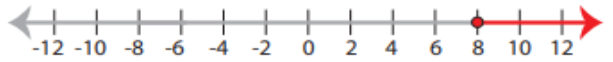
7)  $7 + x < 16$

**$x < 9$**



8)  $4x \geq 32$

**$x \geq 8$**



**Q.5) Solve each inequality.**

1)  $2x + 5 > 13$

$x > 4$

2)  $\frac{x-4}{3} \leq 5$

$x \leq 19$

3)  $5x - 7 \geq 8$

$x \geq 3$

4)  $\frac{x}{2} + 4 < 7$

$x < 6$

5)  $9x - 3 > 6$

$x > 1$

6)  $11 + 3x \leq 17$

$x \leq 2$

7)  $4x - 12 \geq 8$

$x \geq 5$

8)  $3x + 7 < 9$

$x < \frac{2}{3}$

9)  $\frac{x}{4} + 1 > 10$

$x > 36$

10)  $\frac{x-6}{4} \leq 2$

$x \leq 14$

11)  $7x - 3 > 18$

$x > 3$

12)  $3x + 1 \geq 7$

$x \geq 2$

**Q.6) Circle the possible values that satisfy each inequality.**



$\frac{x}{5} + 6 < 2$

14   10   **-21**   -12



$7 \geq 3x + 4$

4   **1**   2   **-1**



$7x + 1 \leq 15$

5   **2**   **1**   **-2**



$5x - 13 > 2$

2   -1   **5**   **4**



$\frac{x}{2} + 4 < 8$

8   **-7**   **3**   **-2**



$12 + 2x < 18$

4   **2**   **-2**   6

**Q.7) Write the inequality that best describes each graph.**

1)

Inequality:  $x \leq 4$

2)

Inequality:  $x \geq -20$

3)

Inequality:  $x > -16$

4)

Inequality:  $x \geq -2$

5)

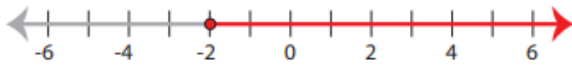
Inequality:  $x \geq 10$

6)

Inequality:  $x < 9$

### **Q.8) Graph the inequality.**

1)  $x \geq -2$



2)  $x < 5$



3)  $x \leq 6$



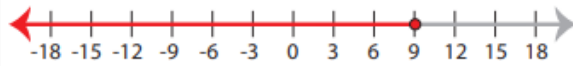
4)  $x > 1$



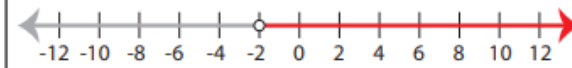
5)  $x < -14$



6)  $x \leq 9$



7)  $x > -2$



8)  $x \geq -15$

