Abhinava, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 27 when x is a natural number.

## Problem 2

Solve 4x + 5 > 10 when x is a real number.

#### Problem 3

Solve 
$$\frac{10(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{4x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

# Problem 5

Mr. A obtained 16 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 17.

## Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 7 cm shorter than the longest side. If the perimeter of the triangle is atleast 74 cm, find the minimum length of the shortest side.

## Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $2x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Ajith, This one's for you.:)

# Level 1

#### Problem 1

Solve 5x < 25 when x is a natural number.

## Problem 2

Solve 6x + 5 > 10 when x is a real number.

# Problem 3

Solve 
$$\frac{10(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{5x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 18 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 18.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 6 cm shorter than the longest side. If the perimeter of the triangle is atleast 94 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $4x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Aaron, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 21 when x is a natural number.

## Problem 2

Solve 4x + 5 > 13 when x is a real number.

# Problem 3

Solve 
$$\frac{10(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{3x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 19 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 12.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 3 cm shorter than the longest side. If the perimeter of the triangle is atleast 71 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $5x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Aysha, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 28 when x is a natural number.

## Problem 2

Solve 4x + 5 > 13 when x is a real number.

# Problem 3

Solve 
$$\frac{10(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{5x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 17 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 12.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 2 cm shorter than the longest side. If the perimeter of the triangle is atleast 89 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \leq 3$ ,  $5x+4y \geq 12$  and  $x \geq 0, y \geq 1$  graphically.

# Level 2

#### Problem 8

Chinmay, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 30 when x is a natural number.

## Problem 2

Solve 4x + 5 > 15 when x is a real number.

# Problem 3

Solve 
$$\frac{2(x-3)}{4} \geq \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{4x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 10 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 15.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 2 cm shorter than the longest side. If the perimeter of the triangle is atleast 81 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $4x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Clive, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 28 when x is a natural number.

## Problem 2

Solve 3x + 5 > 11 when x is a real number.

# Problem 3

Solve 
$$\frac{3(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{5x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 19 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 11.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 2 cm shorter than the longest side. If the perimeter of the triangle is atleast 79 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $3x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Devagnik, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 20 when x is a natural number.

## Problem 2

Solve 4x + 5 > 13 when x is a real number.

# Problem 3

Solve 
$$\frac{7(x-3)}{4} \geq \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{2x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 12 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 11.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 2 cm shorter than the longest side. If the perimeter of the triangle is atleast 89 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 3$ ,  $3x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Drishya, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 20 when x is a natural number.

## Problem 2

Solve 3x + 5 > 13 when x is a real number.

# Problem 3

Solve 
$$\frac{10(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{3x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 11 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 12.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 4 cm shorter than the longest side. If the perimeter of the triangle is atleast 99 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $2x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Eesh, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 29 when x is a natural number.

## Problem 2

Solve 3x + 5 > 15 when x is a real number.

# Problem 3

Solve 
$$\frac{8(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{3x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 18 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 18.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 6 cm shorter than the longest side. If the perimeter of the triangle is atleast 98 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 3$ ,  $4x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Fahima, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 22 when x is a natural number.

## Problem 2

Solve 5x + 5 > 14 when x is a real number.

# Problem 3

Solve 
$$\frac{9(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{3x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 11 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 15.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 2 cm shorter than the longest side. If the perimeter of the triangle is atleast 78 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $2x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Goutam, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 30 when x is a natural number.

## Problem 2

Solve 3x + 5 > 10 when x is a real number.

# Problem 3

Solve 
$$\frac{8(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{2x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 18 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 11.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 7 cm shorter than the longest side. If the perimeter of the triangle is atleast 76 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \leq 3$ ,  $5x+4y \geq 12$  and  $x \geq 0, y \geq 1$  graphically.

# Level 2

#### Problem 8

Gurupreeth, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 29 when x is a natural number.

## Problem 2

Solve 6x + 5 > 10 when x is a real number.

# Problem 3

Solve 
$$\frac{9(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{5x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 10 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 19.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 7 cm shorter than the longest side. If the perimeter of the triangle is atleast 74 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \leq 3$ ,  $4x+4y \geq 12$  and  $x \geq 0, y \geq 1$  graphically.

# Level 2

#### Problem 8

Haleema, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 24 when x is a natural number.

## Problem 2

Solve 6x + 5 > 10 when x is a real number.

# Problem 3

Solve 
$$\frac{10(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{3x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 14 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 20.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 7 cm shorter than the longest side. If the perimeter of the triangle is atleast 70 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 2$ ,  $5x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Jehan, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 20 when x is a natural number.

## Problem 2

Solve 3x + 5 > 12 when x is a real number.

# Problem 3

Solve 
$$\frac{8(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{6x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 12 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 12.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 6 cm shorter than the longest side. If the perimeter of the triangle is atleast 94 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \leq 3$ ,  $3x+4y \geq 12$  and  $x \geq 0, y \geq 1$  graphically.

# Level 2

#### Problem 8

Joseph, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 29 when x is a natural number.

## Problem 2

Solve 4x + 5 > 14 when x is a real number.

# Problem 3

Solve 
$$\frac{7(x-3)}{4} \geq \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{6x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 17 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 18.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 3 cm shorter than the longest side. If the perimeter of the triangle is atleast 99 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $5x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Kaneeksha, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 26 when x is a natural number.

## Problem 2

Solve 5x + 5 > 11 when x is a real number.

# Problem 3

Solve 
$$\frac{4(x-3)}{4} \geq \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{6x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 10 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 17.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 2 cm shorter than the longest side. If the perimeter of the triangle is atleast 95 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $5x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Likhith, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 29 when x is a natural number.

## Problem 2

Solve 5x + 5 > 15 when x is a real number.

# Problem 3

Solve 
$$\frac{10(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{5x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 14 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 19.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 6 cm shorter than the longest side. If the perimeter of the triangle is atleast 96 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 2$ ,  $3x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Lloyd, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 25 when x is a natural number.

## Problem 2

Solve 6x + 5 > 10 when x is a real number.

# Problem 3

Solve 
$$\frac{6(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{5x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 10 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 18.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 2 cm shorter than the longest side. If the perimeter of the triangle is atleast 84 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \leq 3$ ,  $3x+4y \geq 12$  and  $x \geq 0, y \geq 1$  graphically.

# Level 2

#### Problem 8

Mahzarin, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 26 when x is a natural number.

## Problem 2

Solve 3x + 5 > 13 when x is a real number.

# Problem 3

Solve 
$$\frac{10(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{3x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 16 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 17.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 2 cm shorter than the longest side. If the perimeter of the triangle is atleast 72 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \leq 3$ ,  $4x+4y \geq 12$  and  $x \geq 0, y \geq 1$  graphically.

# Level 2

#### Problem 8

Mesha, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 28 when x is a natural number.

## Problem 2

Solve 4x + 5 > 12 when x is a real number.

# Problem 3

Solve 
$$\frac{3(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{5x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 12 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 17.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 2 cm shorter than the longest side. If the perimeter of the triangle is atleast 84 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $5x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Rohan, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 20 when x is a natural number.

## Problem 2

Solve 5x + 5 > 14 when x is a real number.

# Problem 3

Solve 
$$\frac{3(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{3x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 19 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 12.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 3 cm shorter than the longest side. If the perimeter of the triangle is atleast 81 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 2$ ,  $4x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Pratam, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 30 when x is a natural number.

## Problem 2

Solve 4x + 5 > 14 when x is a real number.

# Problem 3

Solve 
$$\frac{3(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{6x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 20 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 18.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 3 cm shorter than the longest side. If the perimeter of the triangle is atleast 83 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 3$ ,  $3x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Preethika, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 21 when x is a natural number.

## Problem 2

Solve 5x + 5 > 14 when x is a real number.

# Problem 3

Solve 
$$\frac{7(x-3)}{4} \geq \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{3x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 18 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 10.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 4 cm shorter than the longest side. If the perimeter of the triangle is atleast 92 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 2$ ,  $4x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Samarth, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 26 when x is a natural number.

## Problem 2

Solve 5x + 5 > 11 when x is a real number.

# Problem 3

Solve 
$$\frac{7(x-3)}{4} \geq \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{6x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 19 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 20.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 7 cm shorter than the longest side. If the perimeter of the triangle is atleast 86 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 3$ ,  $5x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Shreesha, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 22 when x is a natural number.

## Problem 2

Solve 4x + 5 > 14 when x is a real number.

# Problem 3

Solve 
$$\frac{6(x-3)}{4} \geq \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{2x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 13 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 20.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 7 cm shorter than the longest side. If the perimeter of the triangle is atleast 71 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 2$ ,  $2x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Siddharth, This one's for you.:)

## Level 1

#### Problem 1

Solve 5x < 25 when x is a natural number.

## Problem 2

Solve 6x + 5 > 10 when x is a real number.

# Problem 3

Solve 
$$\frac{9(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{6x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 10 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 12.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 5 cm shorter than the longest side. If the perimeter of the triangle is atleast 77 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 2$ ,  $5x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Simaz, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 23 when x is a natural number.

## Problem 2

Solve 5x + 5 > 10 when x is a real number.

# Problem 3

Solve 
$$\frac{3(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{3x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 20 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 10.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 5 cm shorter than the longest side. If the perimeter of the triangle is atleast 82 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 2$ ,  $3x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Subhiksha, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 25 when x is a natural number.

## Problem 2

Solve 3x + 5 > 15 when x is a real number.

# Problem 3

Solve 
$$\frac{2(x-3)}{4} \geq \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{2x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 12 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 12.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 3 cm shorter than the longest side. If the perimeter of the triangle is atleast 77 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $4x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Sudhamshu, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 29 when x is a natural number.

## Problem 2

Solve 5x + 5 > 10 when x is a real number.

# Problem 3

Solve 
$$\frac{10(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{2x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 14 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 12.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 5 cm shorter than the longest side. If the perimeter of the triangle is atleast 96 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 3$ ,  $4x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Suhan, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 25 when x is a natural number.

## Problem 2

Solve 4x + 5 > 14 when x is a real number.

# Problem 3

Solve 
$$\frac{2(x-3)}{4} \geq \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{5x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 15 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 12.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 2 cm shorter than the longest side. If the perimeter of the triangle is atleast 78 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 3$ ,  $5x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Pranav, This one's for you. :)

# Level 1

#### Problem 1

Solve 5x < 27 when x is a natural number.

## Problem 2

Solve 3x + 5 > 10 when x is a real number.

# Problem 3

Solve 
$$\frac{9(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{3x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 19 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 18.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 4 cm shorter than the longest side. If the perimeter of the triangle is atleast 85 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 2$ ,  $2x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Teesha, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 21 when x is a natural number.

## Problem 2

Solve 3x + 5 > 12 when x is a real number.

# Problem 3

Solve 
$$\frac{4(x-3)}{4} \geq \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{6x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 15 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 17.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 5 cm shorter than the longest side. If the perimeter of the triangle is atleast 92 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 3$ ,  $5x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8

Varun, This one's for you. :)

## Level 1

#### Problem 1

Solve 5x < 27 when x is a natural number.

## Problem 2

Solve 3x + 5 > 12 when x is a real number.

# Problem 3

Solve 
$$\frac{5(x-3)}{4} \ge \frac{5(3-x)}{7}$$
.

## Problem 4

Solve 
$$\frac{3x-5}{3} - \frac{7x-3}{5} \le \frac{3x}{4}$$
.

## Problem 5

Mr. A obtained 19 and 18 in first two tests. Find the minimum mark he should get in the third test to have an average of 16.

#### Problem 6

The longest side of a triangle is 4 times the shortest side and the third side is 3 cm shorter than the longest side. If the perimeter of the triangle is atleast 86 cm, find the minimum length of the shortest side.

# Problem 7

Solve the inequalities  $x-2y \le 1$ ,  $3x+4y \ge 12$  and  $x \ge 0, y \ge 1$  graphically.

# Level 2

#### Problem 8