

1. Which of the following is false?  
 A)  $2 > -2$  B)  $5 \leq 5$  C)  $-3 \geq -2$  D)  $2 \geq \sqrt{2}$  E)  $7 \leq 2^3$

2. Which of the followings **does not satisfy** the inequality given below?

$$\frac{x}{2} - 4 \leq 1$$

- A) 6 B) 7 C) 8 D) 10 E) 11
3. How many positive integers satisfy the inequality  $2x + 3 < 12$ ?  
 A) 1 B) 2 C) 3 D) 4 E) 5
4. How many even integers are there whose half are between 3.1 and 6.3?  
 A) 1 B) 2 C) 3 D) 4 E) 5
5. Which positive integer(s) satisfy the inequality  $2(3x-1) - 3(x-1) < 2x+5$ ?  
 A) {2,3} B) {1} C) {1,2}  
 D) {1,3} E) {1,2,3}
6. In a class of 49 students, the ratio of the number of girls to the number of students in the class is more than  $\frac{1}{8}$ . At most how many boys are there in this class?  
 a) 40 b) 41 c) 42 d) 43 e) 44
7. What is the solution set of  $2(3x+1) - 3(x-1) < 2x+2$  in  $\mathbb{N}$ ?  
 A)  $\emptyset$  B) {1} C) {1,2} D) {1,3} E) {2,3}

8. Which one of the followings satisfies the system given below?

$$\left. \begin{array}{l} x + y < 4 \\ x - y > 2 \end{array} \right\}$$

- A) (2,1) B) (1,-3) C) (3,1)  
 D) (1,3) E) (0,3)
9. Which of the following, is a point in the region defined by the following system?

$$\left. \begin{array}{l} x + y > 4 \\ 2x - y < 2 \end{array} \right\}$$

- A) B(5,4) B) B(1,2) C) B(6,3)  
 D) B(2,5) E) B(5,-2)

10. Find the solution set of the system of inequalities  $2x + 3 < 5$  and  $3 - x \leq 5$ .

- A) [-4,2) B) (-2,4] C) [-2,4) D) (-2,4)