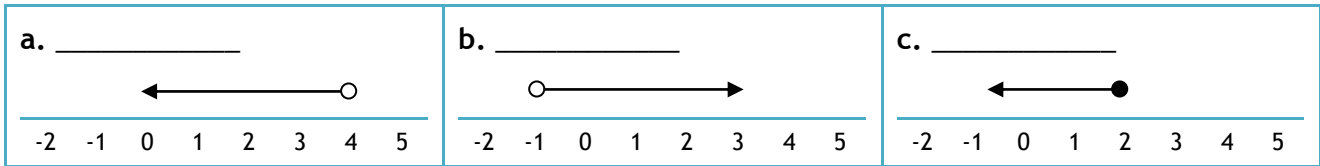
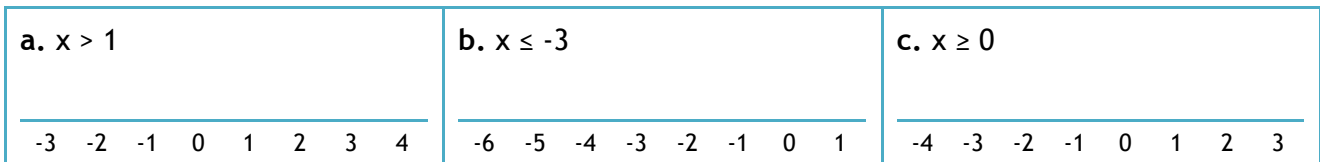


Student task

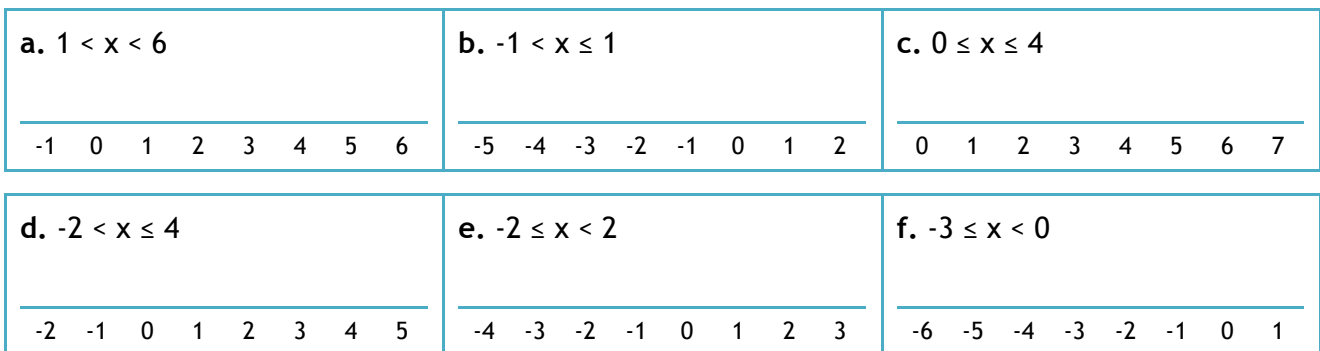
1. Write the inequality shown on the number line



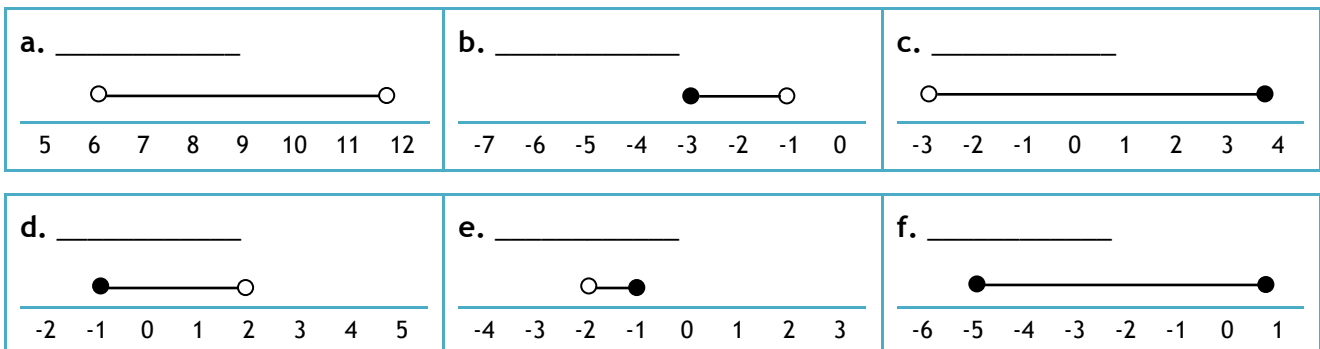
2. Show the inequality on the number line



3. Show the inequality on the number line



4. Write the inequality shown on the number line



5. What is the maximum integer solution?

a. $x < 9$	b. $x < -4$	c. $x \leq 3$	d. $x \leq -2$	e. $0 > x$	f. $2.5 \geq x$	g. $x \leq -3.2$

6. What is the minimum integer solution?

a. $x \geq 3$	b. $x > -1$	c. $x > 3.8$	d. $0 \leq x$	e. $-5 < x$	f. $x > -5.8$	g. $x \geq -1.5$

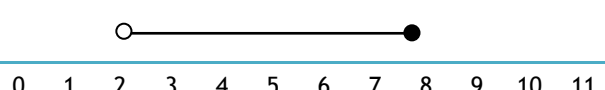
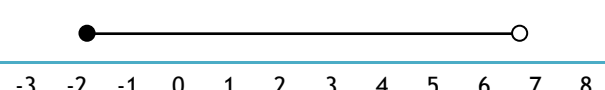
7. Write the integer solutions for the inequality

a. $2 < x < 7$	b. $-5 < x \leq 0$	c. $1 \leq x < 3$	d. $-4 \leq x < -1$
e. $-3 < x \leq -2$	f. $-3 \leq x < 1$	g. $7 \geq x > 2$	h. $1 > x \geq -4$

8. How many integer solutions does the inequality have? (Hint: List them then count them)

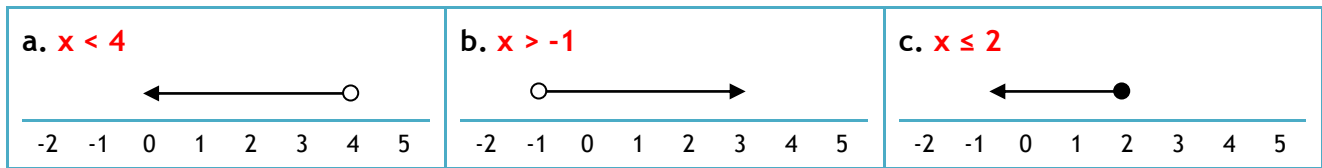
a. $4 < x \leq 8$	b. $-2 < x < 2$	c. $-5 \leq x \leq -4$	d. $-7 \leq x < -2$

9. What are the minimum and maximum integer solutions for the inequalities shown on the number line?

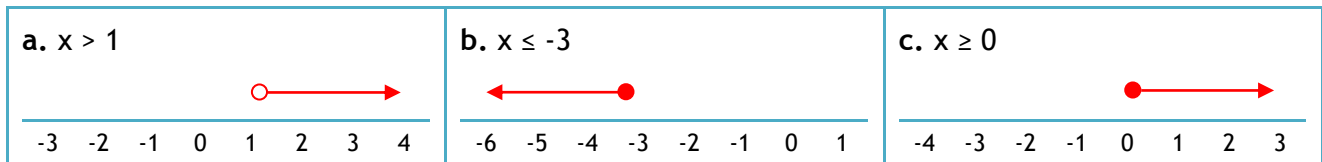
Minimum = _____ Maximum = _____  0 1 2 3 4 5 6 7 8 9 10 11	Minimum = _____ Maximum = _____  -3 -2 -1 0 1 2 3 4 5 6 7 8
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Answers

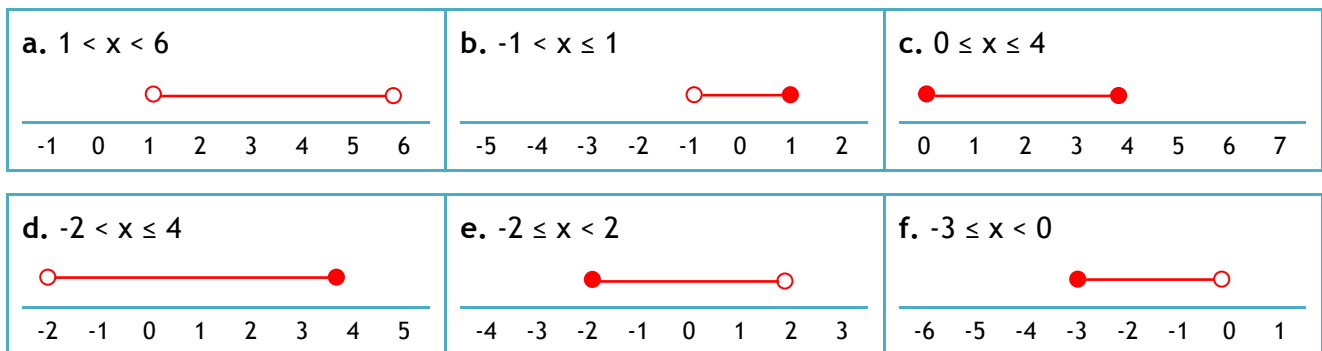
1. Write the inequality shown on the number line



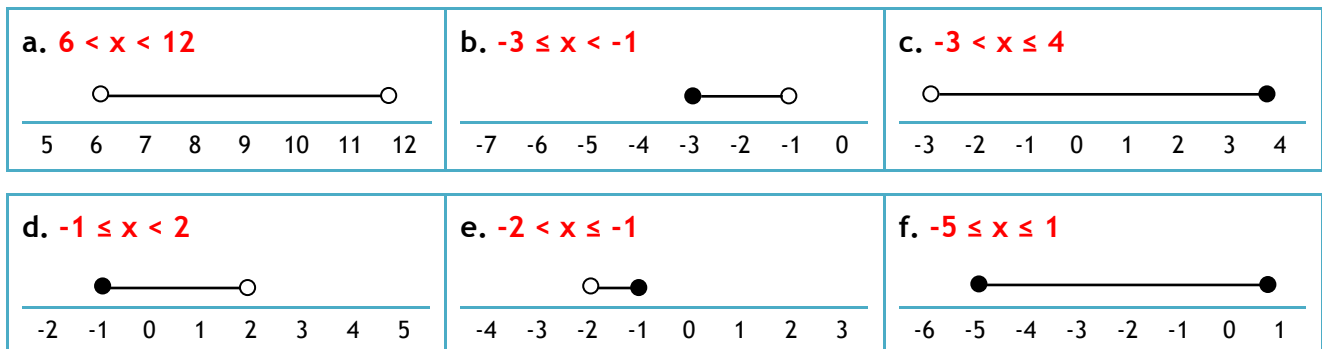
2. Show the inequality on the number line



3. Show the inequality on the number line



4. Write the inequality shown on the number line



5. What is the maximum integer solution?

a. $x < 9$	b. $x < -4$	c. $x \leq 3$	d. $x \leq -2$	e. $0 > x$	f. $2.5 \geq x$	g. $x \leq -3.2$
8	-5	3	-2	-1	2	-4

6. What is the minimum integer solution?

a. $x \geq 3$	b. $x > -1$	c. $x > 3.8$	d. $0 \leq x$	e. $-5 < x$	f. $x > -5.8$	g. $x \geq -1.5$
3	0	4	0	-4	-5	-1

7. Write the integer solutions for the inequality

a. $2 < x < 7$	b. $-5 < x \leq 0$	c. $1 \leq x < 3$	d. $-4 \leq x < -1$
3, 4, 5, 6	-4, -3, -2, -1, 0	1, 2	-4, -3, -2
e. $-3 < x \leq -2$	f. $-3 \leq x < 1$	g. $7 \geq x > 2$	h. $1 > x \geq -4$
-2	-3, -2, -1, 0	7, 6, 5, 4, 3	0, -1, -2, -3, -4

8. How many integer solutions does the inequality have? (Hint: List them then count them)

a. $4 < x \leq 8$	b. $-2 < x < 2$	c. $-5 \leq x \leq -4$	d. $-7 \leq x < -2$
5, 6, 7, 8 4	-1, 0, 1 3	-5, -4 2	-7, -6, -5, -4, -3 5

9. What are the minimum and maximum integer solutions for the inequalities shown on the number line?

Minimum = 3 Maximum = 8 0 1 2 3 4 5 6 7 8 9 10 11	Minimum = -2 Maximum = 6 -3 -2 -1 0 1 2 3 4 5 6 7 8
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Student task

1. Solve the inequalities

a. $2x < 12$	b. $3x > -6$	c. $5x \leq 30$	d. $4x \geq 10$	e. $5x < 17$

2. Solve the inequalities

a. $3x - 1 < 14$	b. $2x + 5 \geq 17$	c. $4x + 7 \leq 3$	d. $2x + 4 < -8$	e. $6x - 9 < 18$

3. Solve the inequalities

a. $2(x + 4) \leq 14$	b. $2(3x - 7) > 16$	c. $3(2x - 4) \geq -6$	d. $4(2x + 5) \geq 4$	e. $3(4x + 2) < 30$

4. Solve the inequalities

a. $\frac{3x+10}{2} > 11$	b. $\frac{2x-5}{3} \leq 3$	c. $\frac{8x-4}{2} \geq 14$	d. $\frac{2x+12}{4} < 2$	e. $\frac{3x-14}{2} \geq -4$

5. Solve the inequalities

a. $7 < 2x + 3 \leq 15$	b. $4 < 3x - 5 < 16$	c. $1 < 2x - 8 \leq 4$	d. $-1 < 4x - 7 \leq 9$

6. What are the integer solutions of the inequalities? (Hint: Solve the inequality first)

a. $5 \leq 2x - 7 \leq 11$	b. $2 < 3x + 8 \leq 17$	c. $-2 < 2x - 8 < 4$	d. $2 \leq 2x - 5 < 14$

7. How many integer solutions are there? (Hint: Solve the inequality, list the integer solutions then count them)

a. $5 \leq 3x - 4 < 14$	b. $1 < 2x + 7 \leq 12$	c. $2 \leq 4x - 5 < 16$	d. $1 < \frac{2x+12}{4} < 5$

Answers

1. Solve the inequalities

a. $2x < 12$	b. $3x > -6$	c. $5x \leq 30$	d. $4x \geq 10$	e. $5x < 17$
$x < 6$	$x > -2$	$x \leq 6$	$x \geq 2.5$	$x < 3.4$

2. Solve the inequalities

a. $3x - 1 < 14$	b. $2x + 5 \geq 17$	c. $4x + 7 \leq 3$	d. $2x + 4 < -8$	e. $6x - 9 < 18$
$x < 5$	$x \geq 6$	$x \leq -1$	$x < -6$	$x < 4.5$

3. Solve the inequalities

a. $2(x + 4) \leq 14$	b. $2(3x - 7) > 16$	c. $3(2x - 4) \geq -6$	d. $4(2x + 5) \geq 4$	e. $3(4x + 2) < 30$
$2x + 8 \leq 14$ $2x \leq 6$ $x \leq 3$	$6x - 14 > 16$ $6x > 30$ $x > 5$	$6x - 12 \geq -6$ $6x \geq 6$ $x \geq 1$	$8x + 20 \geq 4$ $8x \geq -16$ $x \geq -2$	$12x + 6 < 30$ $12x < 24$ $x < 2$

4. Solve the inequalities

a. $\frac{3x+10}{2} > 11$	b. $\frac{2x-5}{3} \leq 3$	c. $\frac{8x-4}{2} \geq 14$	d. $\frac{2x+12}{4} < 2$	e. $\frac{3x-14}{2} \geq -4$
$3x + 10 > 22$ $3x > 12$ $x > 4$	$2x - 5 \leq 9$ $2x \leq 14$ $x \leq 7$	$8x - 4 \geq 28$ $8x \geq 32$ $x \geq 4$	$2x + 12 < 8$ $2x < -4$ $x < -2$	$3x - 14 \geq -8$ $3x \geq 6$ $x \geq 2$

5. Solve the inequalities

a. $7 < 2x + 3 \leq 15$	b. $4 < 3x - 5 < 16$	c. $1 < 2x - 8 \leq 4$	d. $-1 < 4x - 7 \leq 9$
$4 < 2x \leq 12$ $2 < x \leq 6$	$9 < 3x < 21$ $3 < x < 7$	$9 < 2x \leq 12$ $4.5 < x \leq 6$	$6 < 4x \leq 16$ $1.5 < x \leq 4$

6. What are the integer solutions of the inequalities? (Hint: Solve the inequality first)

a. $5 \leq 2x - 7 \leq 11$	b. $2 < 3x + 8 \leq 17$	c. $-2 < 2x - 8 < 4$	d. $2 \leq 2x - 5 < 14$
$12 \leq 2x \leq 18$ $6 \leq x \leq 9$ 6, 7, 8, 9	$-6 < 3x \leq 9$ $-2 < x \leq 3$ -1, 0, 1, 2, 3	$6 < 2x < 12$ $3 < x < 6$ 4, 5	$7 \leq 2x < 19$ $3.5 \leq x < 9.5$ 4, 5, 6, 7, 8, 9

7. How many integer solutions are there? (Hint: Solve the inequality, list the integer solutions then count them)

a. $5 \leq 3x - 4 < 14$	b. $1 < 2x + 7 \leq 12$	c. $2 \leq 4x - 5 < 16$	d. $1 < \frac{2x+12}{4} < 5$
$9 \leq 3x < 18$ $3 \leq x < 6$ 3, 4, 5 3 integer solutions	$-6 < 2x \leq 5$ $-3 < x \leq 2.5$ -2, -1, 0, 1, 2 5 integer solutions	$7 \leq 4x < 21$ $1.75 \leq x < 5.25$ 2, 3, 4, 5 4 integer solutions	$4 < 2x + 12 < 20$ $-8 < 2x < 8$ $-4 < x < 4$ -3, -2, -1, 0, 1, 2, 3 7 integer solutions