Solve and Graph Simple and Compound Inequalities  A3.4

Multiple Choice
Identify the choice that best completes the statement or answers the question.

1 What are the solutions of the inequality? Graph the solutions given: \(-19 < 3x - 4 < 5\)

A \(-26 < x < -2\)

B \(-5 < x < 3\)

C \(-18 < x < 6\)

D \(-9 < x < 3\)

2 What are the solutions of the inequality? Graph the solutions given:
\(6x - 14 < -14\) or \(3x + 10 > 13\)

F \(x < -4\) or \(x > 7\)

G \(x < -6\) or \(x > 0\)

H \(x < 0\) or \(x > 1\)

I \(x < 0\) or \(x > 7\)

3 Solve \(-2y > 10\).

A \(y < -5\)  C \(y < 5\)

B \(y < -5\)  D \(y > 5\)
4. Which inequality is shown by the graph below?

- F $x > 4$
- H $x < 4$
- G $x \geq 4$
- I $x \leq 4$

5. The solution of which linear inequality is graphed below?

- A $y < -x$
- B $y > -x$
- C $y \leq -x$
- D $y \geq -x$

6. Which is the solution to the inequality $3p + 6 \leq 2$?

- F $p \leq -\frac{4}{3}$
- H $p \leq \frac{8}{3}$
- G $p \geq -\frac{4}{3}$
- I $p \geq \frac{8}{3}$

7. Solve the compound inequality $6 \leq x - 2 < 14$.

- A $4 \leq x < 12$
- B $8 \leq x < 16$
- C $6 \leq x < 16$
- D $8 \leq x < 20$

8. Which inequality represents the situation “the temperature should be at least 40 degrees”?

- F $t > 40$
- H $t < 40$
- G $t \geq 40$
- I $t \leq 40$

9. What is the solution to $4m + 5 \leq -2m - 1$?

- A $m \leq -1$
- B $m \geq -1$
- C no solution
- D all real numbers
Solve and Graph Simple and Compound Inequalities  A3.4
Answer Section

MULTIPLE CHOICE

1. ANS: B  PTS: 1  STA: MA.912.A.3.4
2. ANS: H  PTS: 1  STA: MA.912.A.3.4
3. ANS: A  PTS: 1  STA: MA.912.A.3.4
4. ANS: F  PTS: 1  STA: MA.912.A.3.4
5. ANS: C  PTS: 1  STA: MA.912.A.3.4
6. ANS: F  PTS: 1  STA: MA.912.A.3.4
7. ANS: B  PTS: 1  STA: MA.912.A.3.4
8. ANS: G  PTS: 1  STA: MA.912.A.3.4
9. ANS: A  PTS: 1  STA: MA.912.A.3.4