SUMMER PRACTICE FOR ANALYSIS OF FUNCTIONS

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Solve the equation.

1) $27x + 4 = 13$ 1) _____

A) $\left\{-\frac{1}{3}\right\}$ B) $\left\{\frac{8}{27}\right\}$ C) $\left\{\frac{1}{3}\right\}$ D) $\left\{\frac{17}{27}\right\}$

2) $47s + 25 = 2s$ 2) _____

A) $\left\{\frac{9}{5}\right\}$ B) $\left\{\frac{25}{49}\right\}$ C) $\left\{\frac{5}{9}\right\}$ D) $\left\{-\frac{5}{9}\right\}$

3) $4(x + 3) = (4x + 12)$ 3) _____

A) {0} B) {24}

C) {All real numbers} D) ∅

4) $5(y + 4) = 6(y - 3)$ 4) _____

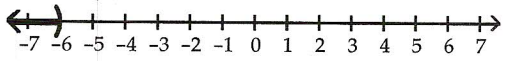
A) {2} B) {38} C) {-2} D) {-38}

5) $\frac{2x}{5} - \frac{x}{3} = 5$ 5) _____

A) {-75} B) {-150} C) {150} D) {75}

Write an inequality statement involving the letter x that describes the given graph or interval notation.

6) 6) _____



A) $x < -6$ B) $x > -6$ C) $x \geq -6$ D) $x \leq -6$

Solve the inequality. Give the solution set in both interval and graph forms.

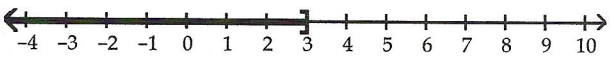
7) $z + 12 < 15$ 7) _____

A) $[3, \infty)$

B) $(3, \infty)$

C) $(-\infty, 3)$

D) $(-\infty, 3]$



8) $7z + 3 \leq 6z + 12$ 8) _____

A) $(7, \infty)$

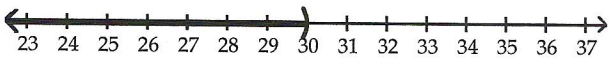
B) $(-\infty, 9]$

C) $(-\infty, 7)$

D) $[9, \infty)$

9) $30x - 15 > 5(5x - 5)$ 9) _____

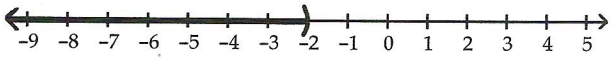
A) $(-\infty, 30)$



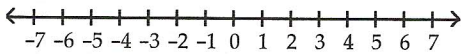
B) $(-2, \infty)$

C) $(30, \infty)$

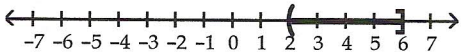
D) $(-\infty, -2)$



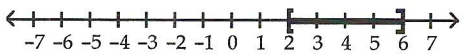
10) $11 < 4z + 3 \leq 27$ 10) _____



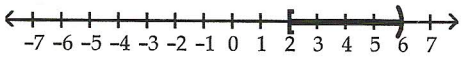
A) $(2, 6]$



B) $[2, 6]$



C) $[2, 6)$



D) $(2, 6)$