

1. State the solution to each compound inequality.

Write your answer as a single inequality if possible.

a) $W > 4$ OR $W < 7$

b) $R \leq -6$ AND $R \leq 0$

c) $K \geq 7$ AND $K < 12$

d) $A < 1$ OR $A > 3$

e) $Q \geq 9$ OR $Q > 15$

f) $M < -4$ AND $M > 2$

2. Solve each system of equations using any method.

a) $a = 4b + 7$
 $3a - 5b = 7$

b) $4m - 9n = 1$
 $5m - 3n = 26$

c) $6x + y - 7z = 65$
 $-x - 5y + 8z = -49$
 $2x + 3y + z = -7$

3. Use these functions:

$$f(x) = x - 6 \quad g(x) = x^2 + 5x \quad h(x) = \frac{4x + 1}{3 - 2x}$$

a) Find $g(h(5))$

b) Find $h(f(x))$

c) Find $g(f(x))$