

1. $(a, b) + (3, 1) = (6, 7)$

$$(a, b) = (6, 7) - (3, 1)$$

$$(a, b) = (3, 6)$$

Answer: $a = 3, b = 6$

2. $(11, c) + (d, 6) = (-12, -3)$

$$(11 + d, c + 6) = (-12, -3)$$

$$11 + d = -12 \Rightarrow d = -23$$

$$c + 6 = -3 \Rightarrow c = -9$$

Answer: $c = -9, d = -23$

3. $(5, 5) + (e, 4) = (2, f)$

$$(5, 5) = (2, f) - (e, 4)$$

$$(5, 5) = (2 - e, f - 4)$$

$$5 = 2 - e \Rightarrow e = -3$$

$$5 = f - 4 \Rightarrow f = 9$$

Answer: $e = -3, f = 9$

4. $(8, -3) - (5, g) = (h, 2)$

$$(3, -3 - g) = (h, 2)$$

$$3 = h$$

$$-3 - g = 2 \Rightarrow g = -5$$

Answer: $h = 3, g = -5$