

1. $x + y = 10$ and $x - y = 4$.

Add: $2x = 14$

$x = 7$; $y = 3$

Answer: (7, 3)

2. $2x + y = 11$ and $x - y = 1$.

Add: $3x = 12$

$x = 4$, $y = 3$

Answer: (4, 3)

3. $3x + 2y = 16$ and $x - 2y = 0$.

Add: $4x = 16$

$x = 4$; then $4 = 2y$

Answer: (4, 2)

4. $2x + 3y = 13$ and $2x + y = 7$. (Subtract!)

Subtract: $2y = 6$

$y = 3$; $2x = 4$

Answer: (2, 3)

5. $x + 3y = 11$ and $2x + y = 7$.

First times -2: $-2x - 6y = -22$

Add: $-5y = -15$, $y = 3$; $x = 2$

Answer: (2, 3)

6. $3x + 4y = 25$ and $x - 4y = -13$.

Add: $4x = 12$, $x = 3$

$3(3) + 4y = 25$, $4y = 16$

Answer: (3, 4)

7. $4x + 3y = 10$ and $2x + 3y = 8$.

Subtract: $2x = 2$

$x = 1$; $4 + 3y = 10$

Answer: (1, 2)

8. $5x + 2y = 16$ and $3x - 4y = 20$.

First times 2: $10x + 4y = 32$

Add: $13x = 52$, $x = 4$; $y = -2$

Answer: (4, -2)

9. $2x + 3y = 12$ and $3x - 2y = 5$. (Multiply BOTH.) ★ challenge

First x2: $4x + 6y = 24$; second x3: $9x - 6y = 15$

Add: $13x = 39$, $x = 3$

$2(3) + 3y = 12$, $y = 2$

Answer: (3, 2)

10. $30x + 10y = 3700$ and $15x + 20y = 3575$ (two supplier prices). ★ challenge

First x2: $60x + 20y = 7400$

Subtract: $45x = 3825$, $x = 85$

Answer: $x = \$85$, $y = \$115$