Solving Systems by Elimination

Solve each system by elimination.

① $5x - 8y = 1$
$3x + 4y = -1$

② $x - y = 1$
$-4x + 3y = 5$

③ $3x - 2y = 6$
$5x - 5y = 10$

④ $-2x - 9y = -25$
$-4x - 9y = -23$

⑤ $x + y = 58$
$2x + 4y = 168$

⑥ $3x + y = 11$
$9x + 2y = 28$

⑦ $5x + y = 9$
$10x - 7y = -18$

⑧ $2x + 3y = 15$
$x - 3y = 3$

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Answers

① $5x - 8y = 1$
$3x + 4y = -1$

$x = -\dfrac{1}{11}, y = -\dfrac{2}{11}$

② $x - y = 1$
$-4x + 3y = 5$

$x = -8, y = -9$

③ $3x - 2y = 6$
$5x - 5y = 10$

$x = 2, y = 0$

④ $-2x - 9y = -25$
$-4x - 9y = -23$

$x = -1, y = 3$

⑤ $x + y = 58$
$2x + 4y = 168$

$x = 32, y = 26$

⑥ $3x + y = 11$
$9x + 2y = 28$

$x = 2, y = 5$

⑦ $5x + y = 9$
$10x - 7y = -18$

$x = 1, y = 4$

⑧ $2x + 3y = 15$
$x - 3y = 3$

$x = 6, y = 1$