Simultaneous Equations A

Part 1 Simple Addition Equations

Add the equations together and one of the letters will disappear.

1. ① $7X + 2Y = 30$
② $X - 2Y = 2$

2. ① $9X + 3Y = 19$
② $6X - 3Y = 11$

3. ① $6X + 3Y = 9$
② $X - 3Y = 5$

4. ① $8X + Y = 18$
② $6X - Y = 10$

5. ① $8X + 2Y = 30$
② $11X - 2Y = 8$

6. ① $X + 3Y = 12$
② $-X + 3Y = 18$

7. ① $-6X + 3Y = 35$
② $6X + 7Y = 5$

8. ① $6X + 3Y = 9$
② $-6X - 1Y = 5$

Part 2 Simple Subtraction Equations

This time you need to subtract one equation from the other.

1. ① $7X + 2Y = 30$
② $X + 2Y = 6$

2. ① $9X + Y = 18$
② $6X + Y = 30$

3. ① $6X - 2Y = 9$
② $7X - 2Y = 5$

4. ① $6X - 3Y = 19$
② $-2X - 3Y = 3$

Part 3 Addition and Subtraction Equations

These questions are a mixture of those covered in parts 1 and 2.

1. ① $3X + 2Y = 30$
② $4X - 2Y = 5$

2. ① $9X + Y = 19$
② $6X + Y = 16$

3. ① $3X - 3Y = 45$
② $2X - 3Y = 15$

4. ① $3X - 2Y = 2$
② $2X + 2Y = 3$

5. ① $2X + 2Y = 2$
② $4X - 2Y = 1$

6. ① $5X - 3Y = 33$
② $6X - 3Y = 11$

7. ① $11X + 3Y = 5$
② $7X + 3Y = 13$

8. ① $2X + Y = 0.5$
② $5X - Y = 3$

Simultaneous Equations A

Answers

Part 1 Simple Addition Equations

1. ① X = 4
② Y = 1

2. ① X = 2
② Y = -1/3

3. ① X = 2
② Y = -1

4. ① X = 2
② Y = 2

5. ① X = 2
② Y = 7

6. ① Y = 5
② X = -3

7. ① Y = 4
② X = -23/6

8. ① Y = 7
② X = -2

Part 2 Simple Subtraction Equations

1. ① X = 4
② Y= 1

2. ① X = -4
② Y = 18

3. ① X = -4
② Y = -16.5

4. ① X = 2
② Y = -7/3

Part 3 Addition and Subtraction Equations

1. ① X = 5
② Y = -7.5

2. ① X = 1
② Y = 10

3. ① X = 30
② Y = 15

4. ① X = 1
② Y = ½

5. ① X = 1/2
② Y = 1/2

6. ① X = -22
② Y = 77/3 = 25 2/3

7. ① X = -2
② Y = 9

8. ① X = 0.5
② Y = -0.5