

Systems: 4 points 2 from two different lines

Find the solution of the system of equations given 2 points from 1 line and 2 points from a different line.

Example 1: Line 1: (3, 7) & (-1, -5) and Line 2: (2, -1) & (-4, 11)

Step 1: Find the slope of Line 1 and Line 2.

Line 1

Line 2

Step 2: Find the y-intercept of Line 1 and Line 2.

Line 1

Line 2

Step 3: Write the equation of Line 1 and Line 2 in $y = mx + b$.

Line 1 Equation:

Line 2 Equation:

Step 4: Solve the system of equations by the substitution method.

Example 2: Line 1: $(-7, -5)$ & $(7, -19)$ and Line 2: $(2, 6)$ & $(3, 10)$

Step 1: Find the slope of Line 1 and Line 2.

Line 1

Line 2



Step 2: Find the y-intercept of Line 1 and Line 2.

Line 1

Line 2



Step 3: Write the equation of Line 1 and Line 2 in $y = mx + b$.

Line 1 Equation:

Line 2 Equation:

Step 4: Solve the system of equations by the substitution method.

Problem #1: Line 1: $(-6, 10)$ & $(11, -7)$ and Line 2: $(3, 9)$ & $(-3, -9)$

Step 1: Find the slope of Line 1 and Line 2.

Line 1

Line 2



Step 2: Find the y-intercept of Line 1 and Line 2.

Line 1

Line 2



Step 3: Write the equation of Line 1 and Line 2 in $y = mx + b$.

Line 1 Equation:

Line 2 Equation:

Step 4: Solve the system of equations by the substitution method.

Problem #2: Line 1: $(0, -4)$ & $(5, 11)$ and Line 2: $(3, -1)$ & $(-5, -17)$

Step 1: Find the slope of Line 1 and Line 2.

Line 1

Line 2



Step 2: Find the y-intercept of Line 1 and Line 2.

Line 1

Line 2



Step 3: Write the equation of Line 1 and Line 2 in $y = mx + b$.

Line 1 Equation:

Line 2 Equation:

Step 4: Solve the system of equations by the substitution method.

Problem #3: Line 1: $(1, -2)$ & $(-1, -3)$ and Line 2: $(7, -5)$ & $(-5, 7)$

Step 1: Find the slope of Line 1 and Line 2.

Line 1

Line 2



Step 2: Find the y-intercept of Line 1 and Line 2.

Line 1

Line 2



Step 3: Write the equation of Line 1 and Line 2 in $y = mx + b$.

Line 1 Equation:

Line 2 Equation:

Step 4: Solve the system of equations by the substitution method.

Problem #4: Line 1: (12, 10) & (-8, -5) and Line 2: (7, 6) & (-5, -6)

Step 1: Find the slope of Line 1 and Line 2.

Line 1

Line 2



Step 2: Find the y-intercept of Line 1 and Line 2.

Line 1

Line 2



Step 3: Write the equation of Line 1 and Line 2 in $y = mx + b$.

Line 1 Equation:

Line 2 Equation:

Step 4: Solve the system of equations by the substitution method.

Problem #5: Line 1: $(-1, -20)$ & $(-1, -30)$ and Line 2: $(12, -5)$ & $(-9, -5)$

Step 1: Find the slope of Line 1 and Line 2.

Line 1

Line 2



Step 2: Find the y-intercept of Line 1 and Line 2.

Line 1

Line 2



Step 3: Write the equation of Line 1 and Line 2 in $y = mx + b$.

Line 1 Equation:

Line 2 Equation:

Step 4: Solve the system of equations by the substitution method.