## ACA 3 Partner Problems

Partner 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Partner 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Work each problem in your column. For each problem number, your solution should match your partner’s solution.

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | Solve:  7x – 2(4x – 3) = 2 | 1 | Solve:  5x – 3(4x – 6) = -10 |
| 2 | Determine the number of solutions:  2(2x + 3) – 2x = 7x + 6 – 5x | 2 | Determine the number of solutions:  2(3x – 4) = 4x – 8 + 2x |
| 3 | Solve the absolute value equation  |x – 1| – 6 = -3 | 3 | Solve the absolute value equation  |x – 1| – 9 = -6 |
| 4 | Write the equation, in slope-intercept form, of the equation through the points  (2, -6) and (8, -3) | 4 | Write the equation, in slope-intercept form, of the equation through the points  (12, -1) and (6, -4) |
| 5 | Find the intercepts: 4x – 3y = 12  x-intercept: \_\_\_\_\_ y-intercept: \_\_\_\_\_\_ | 5 | Find the intercepts: 8x – 6y = 24  x-intercept: \_\_\_\_\_ y-intercept: \_\_\_\_\_\_ |
| 6 | Are the lines perpendicular?  y = 2x – 6  y + 5 = -2(x + 3) | 6 | Are the lines perpendicular?  y = 3x + 5  3x + y = 7 |
| 7 | Are the lines perpendicular? | 7 | Are the lines perpendicular? |
| 8 | Determine the linear function that best fits the data: | 8 | Determine the linear function that best fits the data: |
| 9 | Solve the system of equations:  5x + 3y = -6  2x + 6y = 4 | 9 | Solve the system of equations:  3x + 6y = 2  2x + 12y = 12 |
| 10 | Determine the number of solutions: | 10 | Determine the number of solutions: |
| 11 | A population begins at 6150 and grows at a rate of 2.5%. What is the population after 3 years? | 11 | A population begins at 6000 and grows at a rate of 2.5%. What is the population after 4 years? |
| 12 | Simplify:  (-4x – 2) – (-4x2 + 5x + 4) | 12 | Simplify:  (-3x – 1) – (-4x2 + 6x + 5) |