**Integer Word Problem Activity**

Partner Sort Activity

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| **Word Problem** | **Equation** | **Solution** |
| 1. Find two consecutive integers whose sum is 45.
 | x + (x + 1) = 45 | 22, 23 |
| 1. Find three consecutive even integers whose sum is 72.
 | x + (x + 2) + (x + 4) = 72 | 22, 24, 26 |
| 1. Find two consecutive odd integers whose sum is –88.
 | x + (x + 2) = -88  | -45, -43 |
| 1. Find four consecutive odd integers whose sum is 56.
 | x + (x + 2) + (x + 4) + (x + 6) = 56 | 11, 13, 15, 17 |
| 1. Find two consecutive even integers such that the sum of the larger and twice the smaller is 62.
 | (x + 2) + 2x = 62 | 20, 22 |
| 1. Find three consecutive integers such that the sum of twice the smallest and 3 times the largest is 126.
 | 2x + 3(x + 2) = 126 | 24, 25, 26 |
| 1. Seven times a number is equal to 12 more than 3 times the number. Find the number.
 | 7x = 3x + 12 | 3 |
| 1. Ten more than 6 times a number is 4 less than 4 times the number.
 | 6x + 10 = 4x – 4 | -7 |
| 1. The second of two numbers is 4 times the first. Their sum is 50. Find the numbers.
 | x + 4x = 50 | 10, 40 |
| 1. The second of two numbers is 5 more than twice the first. Their sum is 80. Find the numbers.
 | x + (2x + 5) = 80 | 25, 55 |
| 1. The perimeter of a rectangle is 24 inches. Find the dimensions if its length is 3 inches greater than its width.
 | 2x + 2(x + 3) = 24 | 4.5, 7.5 |
| 1. Find the measures of the angles of a triangle if the angles are represented by x, 4x, and 4x.
 | x + 4x + 4x = 180 | 20, 80, 80 |
| 1. The perimeter of a triangle is 51 centimeters. The lengths of its sides are consecutive odd integers. Find the lengths of all three sides.
 | x + (x + 2) + (x + 4) = 51 | 15, 17, 19 |
| 1. Two-thirds times a number plus 7 equals 7 minus the number. Find the number.
 | $$\frac{2}{3}x+7=7-x$$ | 0 |

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| **Questions to be Sorted** | The perimeter of a triangle is 51 centimeters. The lengths of its sides are consecutive odd integers. Find the lengths of all three sides. | Two-thirds times a number plus 7 equals 7 minus the number. Find the number. |
| Find two consecutive integers whose sum is 45. | Find three consecutive even integers whose sum is 72. | Find two consecutive odd integers whose sum is –88. |
| Find four consecutive odd integers whose sum is 56. | Find two consecutive even integers such that the sum of the larger and twice the smaller is 62. | Find three consecutive integers such that the sum of twice the smallest and 3 times the largest is 126. |
| Seven times a number is equal to 12 more than 3 times the number. Find the number. | Ten more than 6 times a number is 4 less than 4 times the number. | The second of two numbers is 4 times the first. Their sum is 50. Find the numbers. |
| The second of two numbers is 5 more than twice the first. Their sum is 80. Find the numbers. | The perimeter of a rectangle is 24 inches. Find the dimensions if its length is 3 inches greater than its width. | Find the measures of the angles of a triangle if the angles are represented by x, 4x, and 4x. |

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| Find four consecutive odd integers whose sum is 56. | Find two consecutive even integers such that the sum of the larger and twice the smaller is 62. | Find three consecutive integers such that the sum of twice the smallest and 3 times the largest is 126. |
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| The second of two numbers is 5 more than twice the first. Their sum is 80. Find the numbers. | The perimeter of a rectangle is 24 inches. Find the dimensions if its length is 3 inches greater than its width. | Find the measures of the angles of a triangle if the angles are represented by x, 4x, and 4x. |
| **Equations to be Sorted** | x + (x + 1) = 45 | x + (x + 2) + (x + 4) = 72 |
| (x + 2) + 2x = 62 | x + (x + 2) + (x + 4) + (x + 6) = 56 | x + (x + 2) = -88 |
| 2x + 3(x + 2) = 126 | 6x + 10 = 4x – 4 | x + 4x = 50 |
| 2x + 2(x + 3) = 24 | x + (2x + 5) = 80 | 7x = 3x + 12 |
| x + 4x + 4x = 180 | x + (x + 2) + (x + 4) = 51 | $$\frac{2}{3}x+7=7-x$$ |

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