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| **Notes – One-Step Equations**   1. **To solve an equation for a given variable, you need to do the "INVERSE" of whatever has been done to the variable.** 2. **You want to get the VARIABLEby itself; that is, the "LIKE TERMS" on one side.** 3. **Since an equation is a BALANCE SCALE, WHATEVER YOU DO TO ONE SIDE, YOU MUST DO THE EXACT SAME THING TO THE OTHER SIDE OF THE EQUAL SIGN!** |

**Inverse Operations and Solving One-Step Equations**

To solve equations, you have to do the INVERSE OPERATION.

For each operation below, name the inverse operation:

1. + 45 \_\_\_\_\_\_\_\_\_\_
2. – 8.2 \_\_\_\_\_\_\_\_\_\_
3. 8 \_\_\_\_\_\_\_\_\_\_
4. 17 \_\_\_\_\_\_\_\_\_\_

Look at the equations below and write the inverse operation you would use to solve.

1. x + 82 = 197 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. = 4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. 4x = 39 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. x – 8.2 = 4.8 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. a + 42 = 83.75 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. 7b = 24.5 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. = 10 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. z – 8 = 9 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. 8.2m = 82 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. = 18 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **\*\*YOU MUST SHOW ALL OF YOUR WORK AND CHECK EVERY ANSWER\*\***  **REMEMBER USE THE INVERSE AND WHATEVER YOU DO TO ONE SIDE OF THE EQUAL SIGN YOU MUST DO TO THE OTHER SIDE OF THE EQUAL SIGN.** | | | |
| **1)** y + 3 = 10 | Check: | **2)** t – 9 = 36 | Check: |
| Solution: | | Solution: | |
| **3)** 70 + h = 129 | Check: | **4)** 56.1 = x + 89.5 | Check: |
| Solution: | | Solution: | |
| **5)** x + 3.6 = 132 | Check: | **6)** a – 21 = 47 | Check: |
| Solution: | | Solution: | |

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| **7)** 19g = 57 | Check: | **8)** b – 67.6 = 29 | Check: |
| Solution: | | Solution: | |
| **9)** 99 + c = 109 | Check: | **10)** d + 28 = 85 | Check: |
| Solution: | | Solution: | |
| **11)** n ÷ 4 = 36 | Check: | **12)** 6b = 90 | Check: |
| Solution: | | Solution: | |
| **13)** 200 = 10p | Check: | **14)** 97 = w – 47 | Check: |
| Solution: | | Solution: | |

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| **15)** g + g + g = 27 | Check: | **16)** h + h + h + h = 44 | Check: |
| Solution: | | Solution: | |
| **17)** 6v – 4v = 66.8 | Check: | **18)** 18.5 – 13 + j = 17 | Check: |
| Solution: | | Solution: | |
| **19)** 5 + 2.1 + x = 20 | Check: | **20)** p ÷ 10 = 230 | Check: |
| Solution: | | Solution: | |
| **21)** p ÷ 4.2 = 21 | Check: | **22)** 2z + 5z – z = 60 | Check: |
| Solution: | | Solution: | |
| **23)** x ÷ 6 = 36 | Check: | **24)** j + 4.5 = 10.1 | Check: |
| Solution: | | Solution: | |
| **25)** f ÷ 2 = 100 | Check: | **26)** 12z = 60 | Check: |
| Solution: | | Solution: | |
| **27)** m – 13.5 = 88.45 | Check: | **28)** 5n = 25 | Check: |
| Solution: | | Solution: | |
| **29)** z ÷ 12 = 48 | Check: | **30)** 13d = 39 | Check: |
| Solution: | | Solution: | |