Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Sample Problems With Two Resistors Worksheet**



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| VS |  | R1 | R2 |

1. VS = 24 V, R1 = 10.56 kΩ, R2 = 8.8 kΩ, **Solve for RT** **and IT \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| 2. | VS = 14 V, R1 = 9.6 kΩ, R2 = 8.4 kΩ, **Solve for RT** **and IT** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| 3. | IT = 25 mA, R1 = 2 kΩ, R2 = 3 kΩ, **Solve for Vs** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| 4. | IT = 2.25 mA, R1 = 20 kΩ, R2 = 80 kΩ, **Solve for Vs** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| 5. | IT = 75 mA, R1 = 390 Ω, R2 = 624 Ω, **Solve for I1** **and I2** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| 6. | IT = 3.25 mA, R1 = 2.4 kΩ, R2 = 8 kΩ, **Solve for I1** **and I2** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| 7. | VS = 20 V, IT = 100 mA, I2 = 20 mA, **Solve for R1** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| 8. | VS = 12 V, IT = 4.1 mA, I1 = 2.5 mA, **Solve for R2** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| 9. | VS = 18 V, IT = 92.8 mA, I2 = 54.54 mA, **Solve for R1** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 10. | VS = 6 V, IT = 20 mA, R2 = 1.2 kΩ, **Solve for R1** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 11. | VS = 9 V, IT = 3.33 mA, R2 = 4.2 kΩ, **Solve for R1** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 12. | VS = 16 V, IT = 70.6 mA, R1 = 340 Ω, **Solve for R2** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 13. | R1 = 16 kΩ, I1 = 1.75 mA, I2 = 1.25 mA, **Solve for R2** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. IT = 27 mA, VS = 54 V, R1 = R, R2 = 2R, **Solve for R1** **and R2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**