**Module 3 Activity Worksheet 16**

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| AS/NZS 3000 2.2.2 provides four methods of determining maximum demand current. List the four methods below:  |
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**Graphing Activity**

Use the data in the following table to graph the relationship between conductor length (along the x-axis) and the three measurements voltage, current and resistance.

You should draw 3 separate lines, with a key identifying each parameter.

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| **length** | **resistance** | **current** | **voltage** |
| (cm) | (ohms) | (amps) | (volts) |
| 10 | 0.87 | 2.33 | 2.03 |
| 20 | 1.17 | 2.41 | 2.82 |
| 30 | 1.63 | 1.96 | 3.2 |
| 40 | 2.34 | 1.46 | 3.42 |
| 50 | 2.91 | 1.23 | 3.58 |
| 60 | 3.45 | 1.07 | 3.69 |
| 70 | 3.91 | 0.93 | 3.64 |
| 80 | 4.56 | 0.8 | 3.65 |
| 90 | 5.18 | 0.72 | 3.73 |
| 100 | 5.95 | 0.64 | 3.81 |

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Complete the statements:

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| As the length of the conductor increases, the resistance … |

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| As the length of the conductor increases, the current … |

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| As the length of the conductor increases, the voltage … |