Here is a list of electrical resistivity values for different conductor materials at around 20°C, depending on their nature:

Material	**Electrical Resistivity (Ω·m) at 20°C**
Silver	1.6×10^{-8}
Copper	1.7×10^{-8}
Gold	2.4×10^{-8}
Aluminium	2.8×10^{-8}
Tungsten	4.9×10^{-8}
Zinc	5.5×10^{-8}
Nickel	7×10^{-8}
Iron	1×10^{-7}
Brass	~$0.6 - 0.9 \times 10^{-7}$
Lead	1.9×10^{-7}
Platinum	0.98×10^{-7}
Carbon (Graphite)	1×10^{-5}

The electrical resistivity classification ranges:

- Conductors: 10−810−8 to 10−210−2 Ω·m
- Semiconductors: 10−610−6 to 106106 Ω·m
- Insulators: 10111011 to 10191019 Ω·m

Exercises:

1. Calculate the resistance of a copper wire 5m long and 1mm² cross-sectional area given the resistivity of copper.
2. Find the resistivity of a wire if its length is 2m, cross-sectional area 0.5 mm², and resistance 3 Ω.
3. A wire has resistance 10 Ω at 20°C. If the resistivity of the material is known, determine the length of the wire.
4. Compare the resistance of an aluminum wire and a copper wire both 4m length and 1 mm² area.
5. Calculate cross-sectional area of a gold wire with resistance 15 Ω and length 3m.
6. A wire made of silver has resistance 8 Ω. Calculate the length if the area and resistivity are known.