Elemental Conductivity Math Worksheet

The table below lists some familiar metals and gives their conductivities.

Metal	Conductivity X 10^5 $(\Omega \text{ cm})^{-1}$
Aluminum, Al	3.65
Calcium, Ca	2.78
Copper, Cu	5.88
Gold, Au	4.55
Iron, Fe	1.02
Lead, Pb	0.48
Magnesium, Mg	2.33
Manganese, Mn	0.072
Mercury, Hg	0.10
Molybdenum, Mo	1.89
Nickel, Ni	1.43
Platinum, Pt	0.96
Plutonium, Pu	0.070
Silver, Ag	6.21
Sodium, Na	2.11
Tin, Sn	0.91
Titanium, Ti	0.23
Tungsten, W	1.89
Uranium, U	0.39
Zinc, Zn	1.69

1. Which of the metals listed above is the worst conductor? What is its conductivity?

2. Which of the metals listed above is the best conductor? What is its conductivity?

3. List below the six best conductors from the table in order from the metal with the lowest conductivity to the metal with the highest conductivity.

4. What is the mode of the conductivity data?

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5. In the space below, draw a bar graph showing the conductivities for all the metals with a conductivity greater than 1×10^5 $(\Omega \text{ cm})^{-1}$.

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