Names: _____ **Date:** _____

Population Density Worksheet Answers

1. **Record** the classroom dimensions and population below. Then, **calculate** the area and amount of classroom space per person.

    Length = _____11_____ meters   Width = _____6_____ meters

    Area (length x width) = _____66_____ square meters

    Population = _____30_____ people in the classroom

    How much space does each person have? _____2.2_____ square meters

    Hint: space = area (length x width) divided by (# of people)

2. **Prediction**: How much space would each person have if the number of people in the class doubled?   **1.1 square meters**

3. Calculate the population density.

    Population density = _____.47_____ per square meter

    Hint: population density = (# of people) divided by area (length x width)

4. Perform and record the population density calculations for the prairie dog population below.

Year	# Prairie Dogs	Area (square meters)	Population Density
1985	10	10	1 prairie dog per square meter
1990	30	10	3 prairie dogs per square meter
1995	130	10	13 prairie dogs per square meter
2000	80	10	8 prairie dogs per square meter
2005	2	10	2 prairie dogs per square meter

5. Why would an engineer want to know about how populations change over time?

    Example answers: for city planning, for planning use of natural and human-made resources, etc.