SOLAR SYSTEM

The Solar System has 8 planets, each on its own orbit. The planets' positions are defined by their angles, as marked on the scheme: all angles are multiples of 45°.

Use the statements below to figure out the positions of the planets. To get you started, the position of Saturn is already marked.

1. There are three angles with no planets on them.
2. There is exactly one line (two opposing angles) which has three planets on it; these planets have adjacent (consecutive) orbits.
3. No four planets are on the same line.
4. No two planets on adjacent orbits have the same angle.
5. All terrestrial planets have different angles.
6. The angle of the heavier ice giant is 225° smaller than the angle of the lighter one.
7. The angle of the larger inferior planet is two times the angle of the smaller one.
8. The angle of the largest planet is five times the angle of the second-smallest one.

Note: the angles don't wrap around the circle; 0° ≠ 360°.