



Answer: The full moon rises at sunset, not at midnight.

Here's how: What is actually happening is that when the moon is on the opposite side of the sun in relation to the earth (coming up while the sun is going down), sunlight from the entire moon surface is reflected back towards the earth, so we see the moon as a full round ball of light. When the moon comes up on our horizon at midnight, only half the light of the moon reflects towards earth; the rest of the lighted surface faces away from the earth. Thus our friends would see a half moon rising at midnight, not a full moon.

Bonus: The first astronomer to describe the true rotation of the planets around the sun was: A. Ptolemy, B. Copernicus, or C. Galileo?

Answer: Copernicus, in 1530.