Escape and Circular Velocity

1. What would the escape velocity be of a satellite orbiting Earth with a mass of 952 kg at a distance of 13,600 kilometers from Earth's center?
2. How fast would the satellite in #1 need to travel and in what direction in order to be locked into circular orbit?
3. What is the difference in velocity (in regards to escape and circular) for a satellite that has a mass of 651 kg and plans to orbit Earth at a distance of 1.45×10^9 cm from the center.

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According to NASA's planetary data base, which planet would require a higher escape velocity from their surface:

1. Jupiter or Saturn
2. Venus or Mars
3. Earth or Venus
4. Pluto or Mercury
5. Neptune or Uranus

Remember, all formula(s), variables, and work with units need to be shown for each!

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