

Q12 Select from the key the statement in which we have the greatest confidence about the interior of Uranus.

KEY for Q12

- A The core of Uranus is no longer undergoing a process of differentiation and has cooled down. ~~X~~
- B The core of Uranus must contain iron, Fe, in order to account for its magnetic field. ~~X~~
- C All the rocky material in Uranus is contained in a small core. ~~X~~
- D Uranus contains a higher proportion of heavy elements (heavier than He) than do Jupiter or Saturn. ✓
- E The core of Uranus has a solid surface. ~~X~~
- F The magnetic field of Uranus cannot originate in the icy layers because ice is not a good electrical conductor. ~~X~~

Pencil across *one* cell in row 12.

Q13 In Figure 7.9 of Book 2, H₂O clouds are shown forming at around 250 K on Saturn. Firstly, would these clouds be composed of ice or water particles, and secondly, what would be the maximum fraction of H₂O in the gas just above these clouds? Pencil across *one* of the cells A-C and *one* of the cells D-H. Take the pressure of Saturn's atmosphere at 250 K as 5 bar.

KEY for Q13

- A Water
- B Ice
- C The clouds would not exist because the partial pressure of H₂O is too low.
- D 10⁻³
- E 5 × 10⁻³
- F 2 × 10⁻⁴
- G 0.2
- H 1

Pencil across *two* cells in row 13.