

Q8 From the key choose the two TRUE cosmological statements. Pencil across two cells in row 8.

KEY for Q8

A In the Einstein-de Sitter model the expansion of the Universe must come to a halt at some finite time in the future. ~~X~~

B The cosmological redshift associated with the expansion of the Universe, and the finite age of the Universe, contribute to the sky being dark at night. ✓

C The variations of the cosmological microwave background radiation on a small angular scale (about 10°) indicate that the Earth is moving relative to the expansion of the Universe. ~~X~~

D The cosmological redshift arises because the light we receive from distant objects was emitted long ago, when atomic spectral lines had smaller frequencies than their present-day counterparts. ~~X~~

E If the Universe started closed, it will remain closed, and if it started open, it will remain open. ✓

F Although the observable Universe continues to expand with time, it does not encompass any further matter. ✓

G The highly isotropic nature of the cosmological microwave background radiation is evidence that the bulk of dark matter is baryonic. ~~X~~