

Science 003B
Problem Set 2, due 27 June 2008
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We learned in class that the cosmic microwave background has a temperature today of about 2.7 K. What does this imply about the typical frequency of a microwave background photon (in Hz)? You have to be able to relate temperature to (typical) energy, and energy to frequency (or wavelength). Compare this to the typical frequencies of your radio stations.

When the universe was half its current size (i.e. the scale factor a was half its current value), what temperature did the cosmic microwave background have?