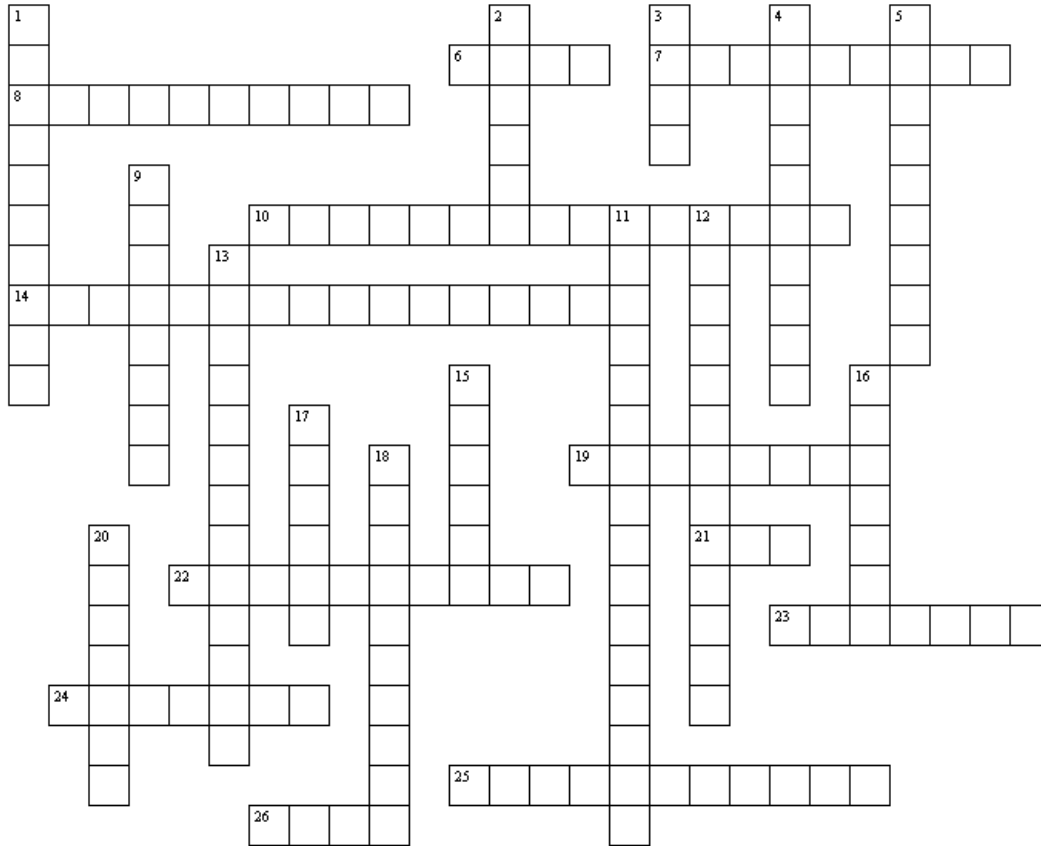




UCI OBSERVATORY VISITOR NIGHT COSMOLOGY CROSSWORD PUZZLE



The solution can be found at
http://www.physics.uci.edu/~observat/cosmo_crossword_soln.pdf



ACROSS

- 6 Einstein hypothesized that this is really just a warp in the fabric of spacetime
- 7 The theory of _____ solves the flatness and horizon problem
- 8 _____ makes up 90% of the mass in the universe
- 10 If the universe's average density is greater than this value, the universe will collapse in a Big Crunch
- 14 Stellar explosions used as standard candles to determine the distances of galaxies
- 19 The age of the universe in units of billions of years (rounded to the nearest integer)
- 21 The inverse of the Hubble constant can give you an estimate of the _____ of the universe
- 22 This currently dictates the universe's expansion rate
- 23 The event that started the universe' expansion
- 24 A galaxy that is four times farther away than another will be _____ times fainter
- 25 The astronomer best known for discovering the expansion of the universe
- 26 A galaxy that is four times farther away than another will have a recessional velocity that is _____ times larger

DOWN

- 1 The expansion of space causes light from distant galaxies to be _____ to longer wavelengths
- 2 The common name for the red emission line of hydrogen
- 3 An elementary particle that is one of the leading dark matter candidates
- 4 This type of galaxy is predominantly found in large clusters of galaxies
- 5 To measure Hubble's Constant, astronomers must measure redshifts and _____ of galaxies
- 9 If space had positive curvature, the sum of the angles in a triangle would be _____ 180 degrees
- 11 Cosmic Background Radiation consists of photons left behind at the time when _____ and _____ combined
- 12 Collisions or gravitational interactions between two gas-rich galaxies can produce a burst of _____
- 13 The astronomer who used globular clusters to show that the Sun was not located at the center of the Milky Way
- 15 A galaxy whose light is dominated by a very active, supermassive black hole
- 16 Gravitational _____ of background galaxies can be used to measure the total mass of a cluster of galaxies
- 17 These elementary particles make up protons and neutrons
- 18 By the universe was three minutes old, approximately _____ percent of its mass was made of helium
- 20 Einstein's Theory of _____ Relativity says that nothing can travel faster than the speed of light