

OCR A LEVEL PHYSICS ASTROPHYSICS

QUIZ WITH VERIFIED ANSWERS.

What is a black hole? - *CORRECT ANSWERS* -The end stage of a stellar core with sufficient mass and density for its escape velocity to exceed the speed of light.

What is the typical mass of a stellar core that creates a black hole? - *CORRECT ANSWERS* -3 solar masses.

What is a Hertzsprung-Russell Diagram? - *CORRECT ANSWERS* -A log-log plot of luminosity (on the y-axis) against average surface temperature (backwards on the x-axis) for a group of stars.

What is the Luminosity of a star? - *CORRECT ANSWERS* -The total radiant power output of a star (Energy radiated per second).

What is a black body? - *CORRECT ANSWERS* -An object that absorbs all radiation incident upon it.

What is a black body spectrum? - *CORRECT ANSWERS* -The characteristic spectrum of radiation emitted by all black bodies in thermal equilibrium with their surroundings.

What is Wien's displacement Law? - *CORRECT ANSWERS* -The peak emission wavelength of a black body spectrum is inversely proportional to the body's absolute temperature.