

Study Guide

math: Mathematics (from Greek $\mu \blacksquare \theta \eta \mu \alpha$ máth ma, "knowledge, study, learning") includes the study of such topics as quantity, structure, space, and change. Mathematicians seek and use patterns to formulate new conjectures; they resolve the truth or falsity of conjectures by mathematical proof.

linear: Linearity is the property of a mathematical relationship or function which means that it can be graphically represented as a straight line.

algebra: Algebra (from Arabic "al-jabr", literally meaning "reunion of broken parts") is one of the broad parts of mathematics, together with number theory, geometry and analysis.

interactive: Across the many fields concerned with interactivity, including information science, computer science, human-computer interaction, communication, and industrial design, there is little agreement over the meaning of the term "interactivity", although all are related to interaction with computers and other machines with a user interface.

computer: A computer is a device that can be instructed to carry out sequences of arithmetic or logical operations automatically via computer programming.

electronics: Electronics comprises the physics, engineering, technology and applications that deal with the emission, flow and control of electrons in vacuum and matter.

writing: Writing is a medium of human communication that represents language and emotion with signs and symbols.

research: Research comprises "creative and systematic work undertaken to increase the stock of knowledge, including knowledge of humans, culture and society, and the use of this stock of knowledge to devise new applications." It is used to establish or confirm facts, reaffirm the results of previous work, solve new or existing problems, support theorems, or develop new theories.

reading: Reading is the complex cognitive process of decoding symbols to derive meaning.

dance: Dance is a performing art form consisting of purposefully selected sequences of human movement.

training: Training is teaching, or developing in oneself or others, any skills and knowledge that relate to specific useful competencies.

exercise: Exercise is any bodily activity that enhances or maintains physical fitness and overall health and wellness.

welding: Welding is a fabrication or sculptural process that joins materials, usually metals or thermoplastics, by using high heat to melt the parts together and allowing them to cool causing fusion.

metal: A metal (from Greek $\mu \blacksquare \tau \alpha \lambda \lambda o \nu$ métallon, "mine, quarry, metal") is a material that, when freshly prepared, polished, or fractured, shows a lustrous appearance, and conducts electricity and heat relatively well.

cutting: Cutting is the separation or opening of a physical object, into two or more portions, through the application of an acutely directed force.