Recent Mathematical Stamps: 2008–2009

Aristotle (384–322 BC)

Aristotle became a student at Plato's Academy at the age of 17, and he stayed there for 20 years. Fascinated by logical questions, he systematized the study of logic and deductive reasoning, discussing such syllogisms as: "All men are mortal; Socrates is a man; therefore Socrates is mortal." This unlikely depiction of him is from a set of stamps celebrating Europe's Year of Astronomy, 2009.

Johannes Kepler (1571–1630)

Kepler is remembered for the three laws of elliptical planetary motion from his *New Astronomy* (1609) and his *Harmony of the World* (1619). He was fascinated by conics and introduced the word *focus* into mathematics. He was also interested in polyhedra, discovering the cuboctahedron and the antiprisms, and by summing thin disks he calculated the volumes of over 90 solids of revolution, thereby foreshadowing the development of the integral calculus.

Damodar Dharmananda Kosambi (1907–1966)

Kosambi was an Indian mathematician and statistician, a Sanskrit scholar, and a numismatist. His main areas of mathematical interest were differential geometry and statistics, though he also contributed to many other fields. He is remembered in statistics as the originator of the technique of *proper orthogonal decomposition*, often named after its later discoverers Karhunen and Loève. In 1944 he introduced the *Kosambi map function*, shown on the stamp.

Isaac Newton (1642–1727)

Several stamps have featured Sir Isaac Newton and his contributions to gravitation. This stamp, issued by the Congo, features his work on optics. Before Newton, telescopes contained lenses that were subject to chromatic aberration (colouring around the edges). Here we see Newton's reflecting telescope, which cured the problem and led to his election to Britain's Royal Society in 1672.

Blaise Pascal (1623–1662)

At the age of 16 Pascal introduced his "hexagon theorem" involving six points on a conic. Later he wrote a treatise on binomial coefficients (Pascal's triangle), and he investigated the theory of probability, atmospheric pressure (Pascal's principle in hydrodynamics), and the properties of cycloids and other curves. Here we see his calculating machine (the *Pascaline*), which could be used to add and subtract.

Polygon

Many stamps have assumed nontraditional shapes (scalene triangles, pentagons, parallelograms, ellipses, and others), but this irregular hexagonal stamp, issued by Macau for the 2008 Olympic Games in Beijing and featuring the "bird's nest stadium," is particularly unusual.

Aristotle

Kepler

Kosambi

Newton

Pascal

Polygon

➤ Please send all submissions to the Stamp Corner Editor,

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