

M3H DRAMATIS PERSONAE

Week 1.

Mitochondrial Eve

Week 2.

Thales (c. 624 – 548 BC) of Miletus (Asia Minor)

Pythagoras (c. 580-500 BC) of Samos (Dodecanese island)

Anaxagoras (d. 428 BC) of Klazomenae (Ionian coast, Asia Minor)

Zeno (fl. c. 450 BC) of Elea (now Italy)

Hippasus (fl. c. 400 BC) of Metapontum (Italy)

Democritus (c. 460- ? BC) of Abdera (Thrace)

Socrates (469 – 339 BC)

Plato (428 – 348 BC)

Eudoxus (of Cnidus, 408 – 355 BC)

Menaechmus (fl. c. 350 BC)

Aristotle (384 – 322 BC)

Euclid (of Alexandria, fl c. 300 BC); *Elements*

Week 3.

Eudemus (of Rhodes), fl. c. 320 BC: history of mathematics (now lost)

Archimedes (of Syracuse, c. 287-212 BC); *The Method*

Apollonius (of Perga, Asia Minor, c.262 – c.190 BC); *Conics*

Aristarchus (of Samos, fl. c. 280 BC)

Eratosthenes (of Cyrene, 276-194 BC)

Hipparchus (of Nicea, c. 180 – c. 125 BC)

Menelaus (of Alexandria, c. 100 AD)

Ptolemy (of Alexandria, fl. c. 127-150 AD); *Almagest*

Heron (of Alexandria, 3rd C. AD)

Diophantus (of Alexandria, fl. c. 250 BC)

Pappus (of Alexandria, fl. c. 290 BC)

Proclus (of Alexandria, 410-485 AD)

Week 4.

Lucretius Carus (c. 99 – c. 55 BC); *De rerum natura*

Aryabhata, author of *Aryabhatiya* (499 AD)

Brahmagupta (fl. 628)
Liu Hui, 3rd C. AD
Tse Chung-chih (430-501 AD)

Week 5.

al-Kwarizmi (d. 850)
Omar Khayyam (c. 1050-1123)
Fibonacci, Leonardo of Pisa (c.1180-1250)
Filippo Brunelleschi (1377-1446) (perspective, 1420)
Leonardo da Vinci (1452-1519); Albrecht Dürer (1471-1528)
Luca Pacioli (1445-1514); *Summa*, 1494 (double-entry book-keeping)
Geronimo Cardano (1501-76); *Ars Magna*, 1545 (complex numbers; cubics and quartics)
Nicholas Copernicus (1473-1543); *De revolutionibus*, 1543 (heliocentric th.)
Francois Viète (1540-1603)
Albert Girard (1590-1633) (spherical excess, 1629)
Simon Stevin (1548-1620) (decimals, 1585)
John Napier (1550-1617) (logarithms, 1614 and 1619)
Henry Briggs (1561-1631) (long division algorithm)
Thomas Hariot (1560-1621); *Praxis*, 1631
William Oughtred (1574-1660); *Clavis*, 1631
Galileo Galilei (1564-1642); telescope, 1609, *The Two Chief Systems* (1632)

Week 6.

Tycho Brahe (1546-1601); astronomical observations
Johannes Kepler (1517-1630); *Astronomia Nova* (1609)
René Descartes (1596-1650); *The Method* (1637)
Girard Desargues (1591-1661); *Brouillon projet* (1639) (projective geometry)
Blaise Pascal (1623-1662); *Traité du triangle arithmétique* (1665, posth.)
Pierre de Fermat (1601-1665)
Christiaan Huygens (1629-1695); *Traité de la lumière* (1690)
John Wallis (1616-1703)
Isaac Barrow (1630-1667); *Lectiones geometricae* (1670)
William Brouncker PRS (1620-1684); continued fraction for π
Robert Boyle (1627-91); *The Sceptical Chemist*, 1661; Boyle's Law $PV = kT$
Sir Isaac Newton (1642-1727); *Principia*, 1687
Gottfried Wilhelm Leibniz (1646-1716); *Nova methodus*, 1684

Week 7.

Jacques Bernoulli (1654-1705); *Ars Conjectandi* (AC), 1713
Jean Bernoulli (1667-1748)
Daniel Bernoulli (1700-1782)
Abraham de Moivre (1667-1754); *The Doctrine of Chances* (DC), 1718/1738/1756
James Stirling (1692-1770); *Methodus differentialis* (1730)
Colin Maclaurin (1698-1746); *Treatise on Fluxions*, 1742
Brook Taylor (1685-1731); *Methodus incrementorum*, 1715
Leonhard Euler (1707-1783)
Jean d'Alembert (1717-1783); *Traité de dynamique*, 1743
J. H. Lambert (1728-1777); *Theorie der Parallellinien*, 1766/1786
Adrien-Marie Legendre (1725-1833); *Nouvelles méthodes ... comètes* (1805)
Joseph-Louis Lagrange (1736-1813); *Mécanique Analytique*, 1788

Week 8.

Pierre-Simon de Laplace (1749-1827); *Mécanique Céleste* (1799-1825); *Théorie Analytique des Probabilités* (1812)
Carl Friedrich Gauss (1777-1855); *Disquisitiones arithmeticae*, 1801
Augustin-Louis Cauchy (1789-1857); *Complex Analysis*
Joseph Fourier (1768-1830); *Théorie Analytique de la Chaleur*, 1822
Simeon-Denis Poisson (1781-1840)
Carl Gustav Jacobi (1804-1851)
Niels Henrik Abel (1802-1829)
Evariste Galois (1811-1832)
J. P. G. Lejeune Dirichlet (1805-1859)
G. F. Bernhard Riemann (1826-66); *Über die Anzahl der Primzahlen unter einer gegebenen Grösse*, 1859
Nikolai Ivanovich Lobachevski (1793-1856); Janos Bolyai (1802-1860)
Charles Jules Brianchon (1785-1864); Victor Poncelet (1788-1867).
Felix Klein (1849-1925); *Erlanger Programm*, 1872
Sophus Lie (1842-1889); *Theorie der Transformationsgruppen*, 1-3, 1888-93

Week 9.

Bernhard Bolzano (1781-1848); *Rein analytischer Beweis ...*, 1817
Karl Weierstrass (1815-1897)
Eduard Heine (1821-1881)
Richard Dedekind (1831-1916); *Stetigkeit und die Irrationalzahlen*, 1872
Georg Cantor (1845-1918); *reals* 1872, *Grundlagen* 1883

Arthur Cayley (1821-95); J. J. Sylvester (1814-97); matrices, 1860s
 George Green (1793-1841); *Essay*, 1828
 Sir William Rowan Hamilton (1805-1865)
 Rudolf Clausius (1822-1888); *Über die bewegende Kraft der Wärme*, 1850
 (thermodynamics)
 Sir George Stokes (1819-1903)
 James Clerk Maxwell (1831-1879); Maxwell's equations, 1865
 Lord Kelvin (Sir William Thomson) (1824-1907)
 Lord Rayleigh (J. W. Strutt) (1842-1919)
 Josiah Willard Gibbs (1839-1903)
 Ludwig Boltzmann (1844-1906)
 Henri Poincaré (1854-1912); *Nouvelles Méthodes de la Mécanique Céleste*
 David Hilbert (1862-1943); Hilbert problems, 1900

Week 10

Emile Borel (1871-1956)
 Henri Lebesgue (1875-1941)
 René Baire (1874-1932)
 Maurice Fréchet (1878-1973)
 Felix Hausdorff (1868-1942)
 Constantin Carathéodory (1873-1950)
 Stefan Banach (1882-1945); *Théorie des opérations linéaires*, 1932
 Laurent Schwartz (1915-2002)
 Edmund Landau (1877-1938); *Handbuch ... der Primzahlen*, 1909
 G. H. Hardy (1877-1947); J. E. Littlewood (1885-1977)
 Srinivasan Ramanujan (1887-1920)
 Norbert Wiener (1894-1964)
 N. N. Luzin (1883-1950); M. Ya. Suslin (1894-1919)
 Andrei Nikolaevich Kolmogorov (1903-1987); *Grundbegriffe*, 1933
 Alan M. Turing (1913-54)
 L. E. J. Brouwer (1881-1966); fixed-point theorem, 1909
 Emmy Noether (1882-1935); B. L. van der Waerden (1903-96)
 Werner Heisenberg (1901-1976); Erwin Schrödinger (1887-1961); Paul Dirac
 (1902-84)
 Albert Einstein (1879-1955); General Theory of Relativity, 1916
 R. A. (Sir Ronald) Fisher (1890-1962);
 Sewall Wright (1889-1988); J. B. S. Haldane (1892-1964)