https://en.wikipedia.org/wiki/Imaginary_number

https://www.nctm.org/Classroom-Resources/Illuminations/Lessons/Axonometry/

https://betterexplained.com/articles/a-visual-intuitive-guide-to-imaginary-numbers/

https://www.youtube.com/watch?v=T647CGsuOVU

https://www.youtube.com/watch?v=2HrSG0fdxLY

https://www.youtube.com/watch?v=N9QOLrfcKNc

https://www.youtube.com/watch?v=DThAoT3q2V4

https://www.youtube.com/watch?v=65wYmy8Pf-Y
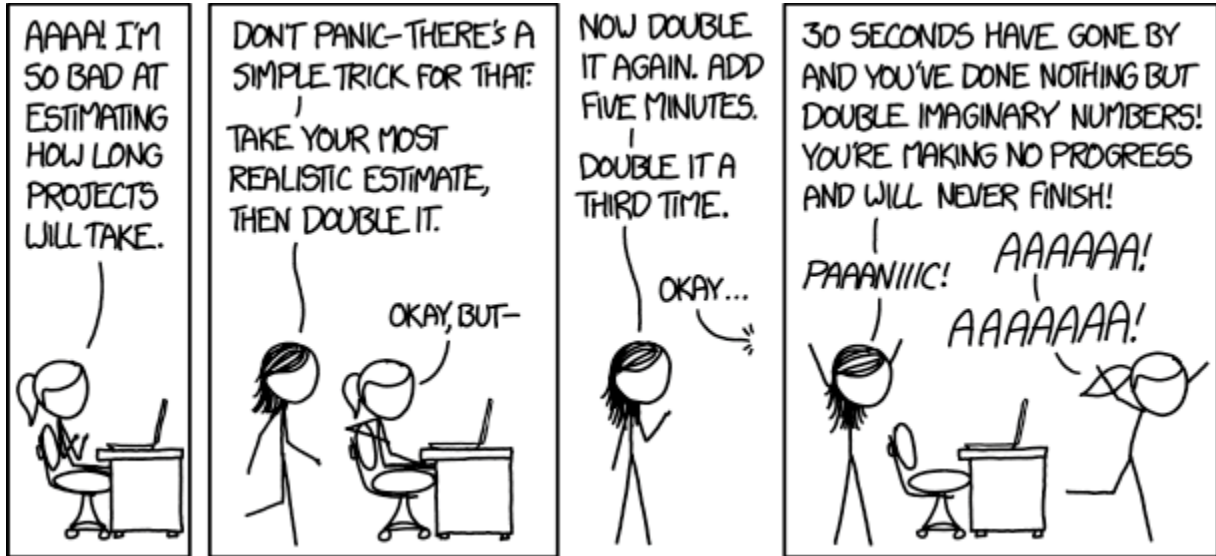
Hero of Alexandria

17th-century German depiction of Hero

Native name	Ἥρων
Born	c. 10 AD
Died	c. 70 AD
Residence	Alexandria, Roman Egypt
Known for	Aeolipile
Scientific career	
Fields	Mathematics , Physics

Leonhard Euler

Portrait by Jakob Emanuel Handmann (1753)

Born	15 April 1707 Basel, Switzerland
Died	18 September 1783 (aged 76) [OS: 7 September 1783] Saint Petersburg, Russian Empire
Residence	Kingdom of Prussia Russian Empire Switzerland
Alma mater	University of Basel (MPhil)
Known for	See full list
Scientific career	
Fields	Mathematics and physics

Carl Friedrich Gauss

Carl Friedrich Gauß (1777–1855), painted by Christian Albrecht Jensen

Born	Johann Carl Friedrich Gauss 30 April 1777 Brunswick, Principality of Brunswick-Wolfenbüttel
Died	23 February 1855 (aged 77) Göttingen, Kingdom of Hanover, German Confederation
Residence	Kingdom of Hanover
Nationality	German
Alma mater	Collegium Carolinum, University of Göttingen, University of Helmstedt
Known for	See full list
Awards	Lalande Prize (1810) Copley Medal (1838)
Scientific career	
Fields	Mathematics and physics
Institutions	University of Göttingen

Rafael Bombelli

Gerolamo Cardano

Gerolamo Cardano

Born	24 September 1501 Pavia
Died	21 September 1576 (aged 74) Italy
Nationality	Italian
Alma mater	University of Pavia
Known for	Polymath, founder of various fields and inventor of several machines
Scientific career	
Fields	Science, maths, philosophy, and literature
Influences	Archimedes, Muḥammad ibn Mūsā al-Khwārizmī, Leonardo Fibonacci
Influenced	Blaise Pascal,[1] François Viète, Pierre de Fermat,[1] Isaac Newton, Gottfried Wilhelm von Leibniz, Maria Gaetana Agnesi, Joseph-Louis Lagrange, Carl Friedrich Gauss

René Descartes

Portrait after Frans Hals, 1648[1]

|	
Born	31 March 1596 La Haye en Touraine, Kingdom of France
Died	11 February 1650 (aged 53) Stockholm, Swedish Empire
Nationality	French
Education	Collège Royal Henry-Le-Grand (1607–1614) University of Poitiers (LL.B., 1616) University of Franeker Leiden University
Era	17th-century philosophy
Region	Western philosophy
School	Rationalism Cartesianism Mechanism Foundationalism[2] Conceptualism[3] Indirect realism[4] Correspondence theory of truth[5] Corpuscularianism[6] Theological voluntarism[7]
Main interests	Metaphysics, epistemology, mathematics, physics, cosmology

Caspar Wessel

Sir William Rowan Hamilton

Sir William Rowan Hamilton (1805–1865)

Born	4 August 1805 Dublin, Ireland
Died	2 September 1865 (aged 60) Dublin, Ireland
Residence	Ireland
Nationality	Irish
Alma mater	Trinity College, Dublin

(A real)

Imaginary Number Plane
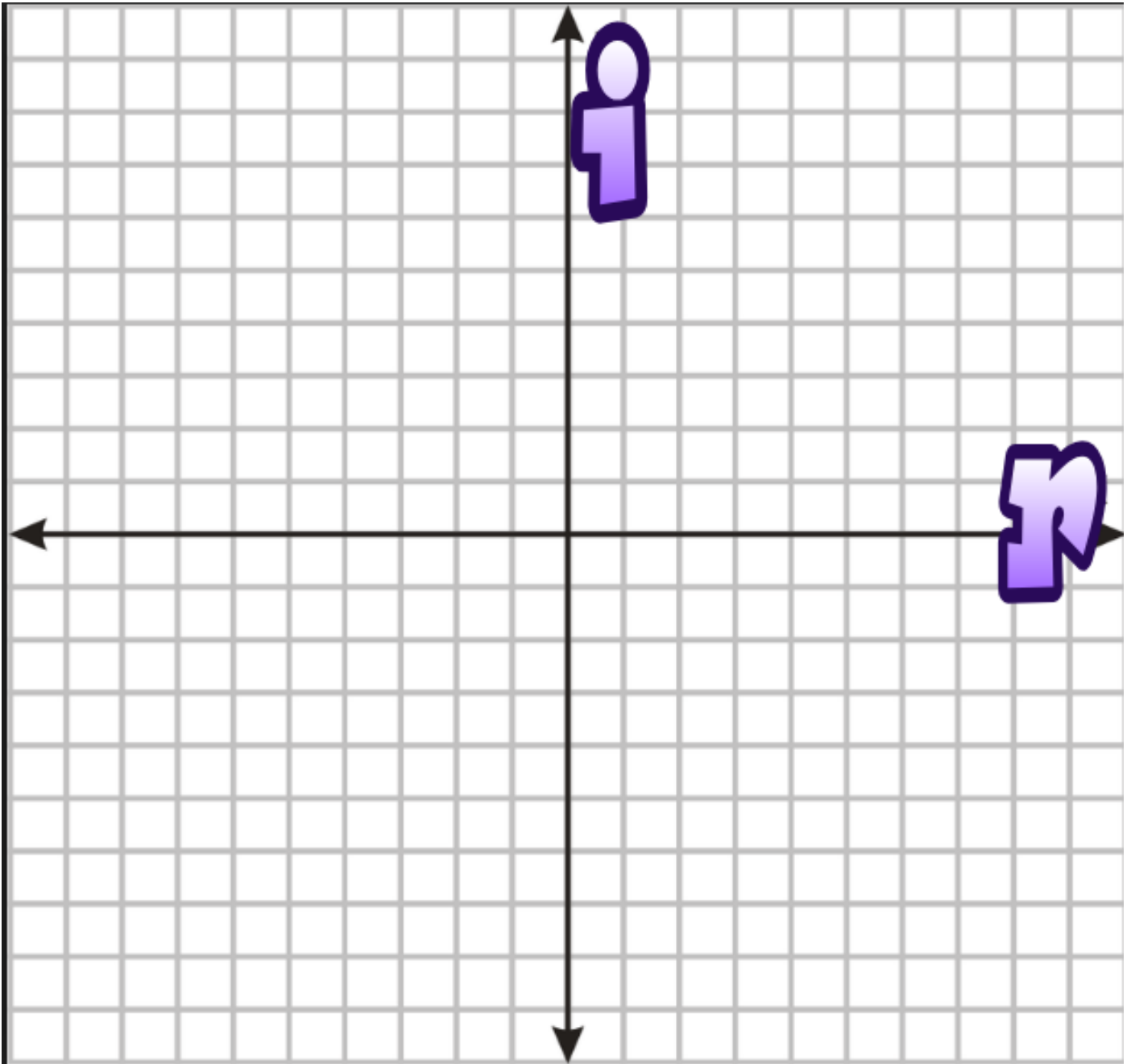
<u>Remember:</u>

When adding complex numbers you must combine like terms.

When multiplying complex numbers you must distribute and then combine like terms.
(Also, $i^2 = -1$)