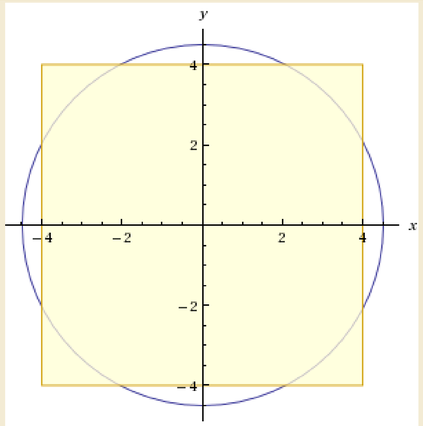
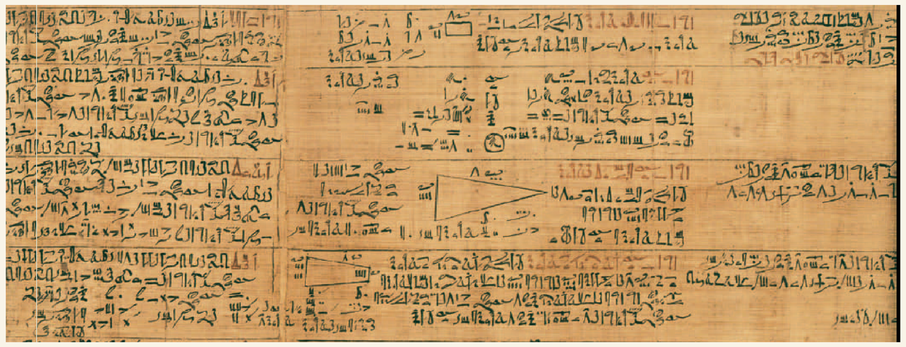
π in the Ancient West

Egypt

The Rhind Papyrus (17th Century BC)

On this is written “Cut off 1/9 of a diameter and construct a square upon the remainder; this has the same area as the circle.” The Rhind Papyrus therefore gives 3.1605 as their approximation for π.





Claudius Ptolemy (150 AD)

Ptolemy of Alexandria used $\pi = 3 + \frac{17}{120}$, or 3.14166 in decimal notation. He used a polygon method which involved chords of a circle as well as a polygon of 360 sides.

Greece

Antiphon and Bryson (5th Century BC)

Antiphon of Rhamnus used the areas of inscribed polygons to estimate the area of a circle. Like Antiphon, Bryson of Heraclea was interested in the area of a circle. His method though used both inscribed *and* circumscribed polygons to find an estimate.

Archimedes (3rd Century BC)

Archimedes of Syracuse is the first to try explicitly finding an estimate for π. Using a method of inscribed and circumscribed polygons, he puts π to be between 223/71 and 22/7. This is 3.140845 and 3.142857 in decimal notation.