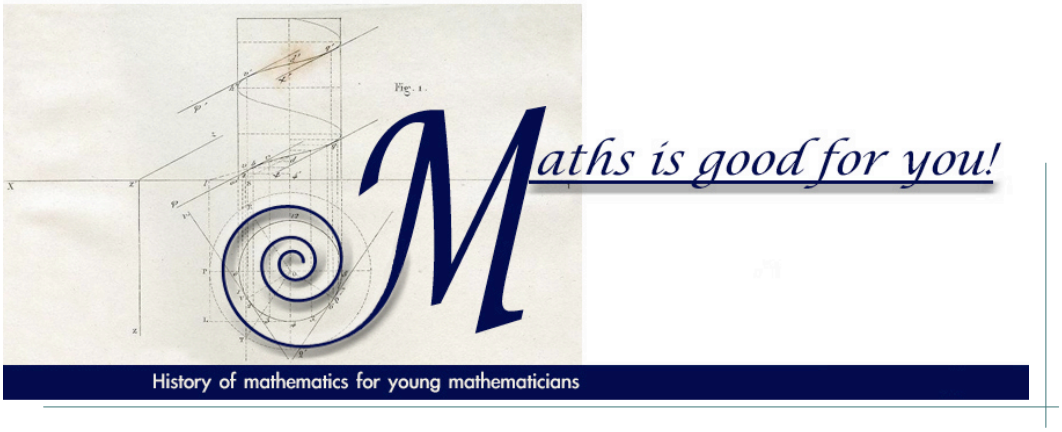
www.mathsisgoodforyou.com

Worksheet on unit fractions

Teacher

Student

Class



Egyptian Unit Fractions

You can see more about the Egyptian unit fractions at http://www.mathsisgoodforyou.com/topicsPages/egyptianmaths/unitfractions.htm.

The Egyptians used mainly used two scripts to record their mathematics. One of them is hieroglyphic, and the other hieratic. Hieratic is a simpler version of hieroglyphic and was used more widely among the Egyptian population; hieroglyphic was mainly used by the Egyptian priests. We will use hieroglyphic symbols in the next exercise.

Egyptians used almost exclusively fractions which have 1 for a numerator. These are called unit fractions. The symbol for a fraction in hieroglyphic script contains sign/symbol for mouth () – but this is at the same time symbol for the smallest unit of grain which is called ro.

So Egyptians would write fractions like this:

 and that would mean $\frac{1}{3}$.

✍ Now you write

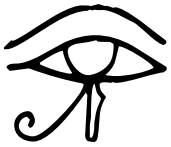
$\frac{1}{5}$

$\frac{1}{10}$

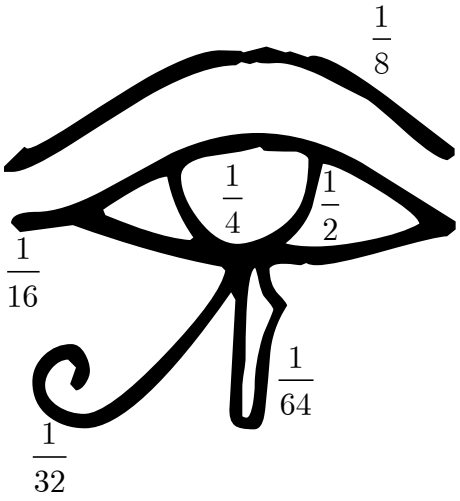
$\frac{1}{24}$

$\frac{1}{64}$

Egyptians' God Horus, who was thought to be protector of health and justice, is also linked with fractions. Horus' Eye is presented by a symbol



Each part of this 'eye' is itself a symbol for a unit fraction as explained below:



Try to add all these fractions together and see what you get. To help you get there, here are some steps you can take:

- how many $\frac{1}{4}$ go into $\frac{1}{2}$? ✍
- so how can you write $\frac{1}{2}$ with 4 in the denominator? ✍
- how do you call fractions which have the same value but look different, like $\frac{1}{32} = \frac{2}{64}$ ✍
- can you work out what common denominator you should have in order to add fractions from the Eye of Horus? ✍