

Puzzle of the Week

Egyptian Fractions – 4

Around 4000 years ago, the ancient Egyptians developed a system where all their fractions were of the form $1/n$. These are called **Egyptian Fractions**. Some Egyptian Fractions can be written as the difference of two Egyptian Fractions. $\frac{1}{3} = \frac{1}{2} - \frac{1}{6}$ is an example of doing that.

THE CHALLENGE: Which Egyptian Fractions can be written as a difference of two Egyptian Fractions in only one way? Which ones can be written in exactly two ways? Are there some that have more than two ways?

$$1/N = 1/A - 1/B$$