

## Puzzle of the Week

# ***Egyptian Fractions – 2***

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Around 4000 years ago, the ancient Egyptians developed a special way of writing fractions. **Unit Fractions**, which are fractions with 1 in the numerator such as  $\frac{1}{3}$  and  $\frac{1}{8}$ , were important to them, and are also known as **Egyptian Fractions**. The Egyptians wrote *any* fractional quantity as an **Egyptian Fraction Sum**, which is a sum of Egyptian Fractions with no duplicates. For example, for  $\frac{7}{8}$  they wrote the Egyptian Fraction Sum  $\frac{7}{8} = \frac{1}{2} + \frac{1}{4} + \frac{1}{8}$ .

**THE CHALLENGE:** Write  $\frac{39}{50}$  as an Egyptian Fraction Sum using as few fractions as possible.

$$\frac{39}{50} = \frac{1}{A} + \frac{1}{B} + \dots$$

**EXPLORATION:** Is your answer the absolute best? If yes, what are your reasons?