



College:

Grade:

Name:

2026

A number is called a palindrome if it reads the same backward as forward.

For example, the number **1441** is a palindrome, but the number **1414** is not.

In **2016**, it was proven that every positive integer is the sum of (at most) three palindromic numbers.

For example, the number **57382** can be expressed as:

$$51115 + 6116 + 151 = 57382.$$

The number **2026** is not a palindrome, but it can be expressed in several ways as the sum of two or three palindromic numbers.

Find the value of each letter in each case.

i)

$$\begin{array}{rcccc} & A & B & B & A \\ + & & C & D & C \\ \hline 2 & 0 & 2 & 6 & \end{array}$$

A	B	C	D

ii)

$$\begin{array}{rcccc} & A & B & B & A \\ + & & A & C & A \\ & & & & C \\ \hline 2 & 0 & 2 & 6 & \end{array}$$

A	B	C

iii)

$$\begin{array}{rcccc} & A & B & B & A \\ + & & & A & A \\ & & & & A \\ \hline 2 & 0 & 2 & 6 & \end{array}$$

A	B