

## Number Systems

Our number system uses base \_\_\_\_ ?

Symbols to represent values:

How do we represent values larger than 9:

175 is written in **standard form**.

**expanded form:**

**expanded exponential form:**

$$175_{10} =$$

1	7	5

### X-Manian Number System







$$\bigcirc = \bigcirc \text{ with a vertical line} = \bigcirc \text{ with a horizontal line} = \bigcirc \text{ with a diagonal line (top-left to bottom-right)} = \bigcirc \text{ with a diagonal line (top-right to bottom-left)} = \bigcirc \text{ with an X}$$

The X-Manian number system uses base \_\_\_\_

Convert this X-Manian number into base 10:


$$\begin{array}{l} \bigcirc \text{ with a vertical line} \\ \bigcirc \text{ with a horizontal line} \\ \bigcirc \text{ with a diagonal line (top-left to bottom-right)} \end{array} =$$

### X-Manian Number System

 = 0    = 1    = 2    = 3    = 4    = 5

The X-Manian number system uses base 6

Convert this X-Manian number into base 10:





  
  
 =

Convert this base 10 number into X-Manian:

$55_{10} =$

Convert this base 10 number into X-Manian:

$142_{10} =$

Solve the following:   reduced by   = \_\_\_\_\_<sub>10</sub>