

Overview:

This program is designed to help students to understand the value of each of the places in expanded notation style. It allows for each of the places to be popped up to show the value of each of the digits. The expanded notation equation is given and represents each of the popped up values as is shown on the screen.

Main Interface:

Toolbox: multiple tools allow for manipulation on screen

Keypad: for entering numbers in to 9,999,999 to be shown on screen

The screenshot shows the main interface of the 'Number Popup' program. At the top left, there is a logo for 'PROFESSOR PETE'S GADGETS'. The title 'NUMBER POPUP' is in the top right. On the left side, there is a vertical toolbar with icons for information, a mouse cursor, a pencil, an eraser, and a refresh button. Below the toolbar is a numeric keypad with digits 0-9 and an 'OK' button. The main area features a grid of colored boxes representing digits in a number. The number '5,623,809' is displayed across four rows of boxes. Below the grid, an equation shows the expanded notation: $5,623,809 = 5,000,000 + 600,000 + 20,809 + 3,000$. A red vertical label 'EXPANDED NOTATION' is positioned to the left of the equation. A cartoon kangaroo is visible in the background.

EXPANDED NOTATION: shows or hides the expanded notation form of the number.

Number: shows numbers to millions as entered by the keypad. Clicking on a digit will expose the value of that digit by it popping up. The Expanded Notation of each of the digits is shown in the equation below.

Toolbox:



Information: About the program

Pointer: resets cursor to a pointer

Pen: hold down for a pop out panel to select on of the nine shades available

Eraser: removes all pen marks

Reset: resets number back to zero

Click: to move the digit value back to its original position in the number

5,623,809 = 5,020,809 + 600,000 + 3,000

Click: to show full value of the digit which pops up above

EXPANDED NOTATION: always shows the number as is reflected in the arrangement above it.