$\square$
name:
date:
\#:
Place Value Equivalent Expression Match

|  | Standard <br> Form | Words | Expanded <br> Form | Place Value | Other Equal <br> Value <br> Expression |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A | 637 |  |  |  |  |
| B |  | Four hundred twenty |  |  |  |
| C |  |  | $900+90+9$ |  | 7 hundreds, <br> 5 ones |
| D |  |  |  |  | 48 tens + <br> ones |
| E |  |  |  |  |  |

## Teacher Directions

## Materials:

- Equivalent Expressions Sort and Match Cards - 20 cards per team. On card stock or colored paper that makes the print not visible when face down


## Objective:

Students will recognize and write equivalent forms of numbers to 1,000 using standard form, expanded form, and words, and recognize equivalent expressions.

## Directions:

Teams of three or four receive the 20 cards, shuffled to be out of order. Teams are given directions to sort them, but not told what criteria to use in sorting or how many different groups to make. After teams have found some ways to sort the cards, the teacher invites teams from around the room to present their sorts to the class. As you choose a group to present, have the team display their cards under the document camera. Wait 30 seconds to let the rest of the class try to think about what the rule might be for the sort. After 30 seconds, prompt the group sharing to call on other students to share what they think the rule is that was used to sort. If it is not correct, have the leading group say, "That might be correct, but it was not what we were thinking." Continue to have groups who sorted different ways share and repeat the same process of playing guess my rule. Some possible sorts we might expect are as follows:

- Cards with only numbers
- Cards with only words
- Cards with a combination of words and numbers
- Cards equivalent to 637
- Cards greater than 500
- Cards with no zeros

Use the sorting and explaining of sorts to point out the different forms of numbers on the cards. The five card types are:

- Standard Form
- Words
- Expanded Notation
- Place Value
- Alternate/ Equivalent Expression

End the sorting by asking students to place the cards into five groups in which all of the cards of a group are equivalent (equal value) forms of the same number. From this sort, ask the students to select the 20 cards that have the four-pointed star. The remaining cards are set aside and not used for the game.

The 20 cards make ten pairs. Have students match the ten pairs and display the matches for the class to check for agreement. Students will play Concentration, sometimes called Memory. The 20 cards are shuffled by each team and arranged face down in a $5 \times 4$ grid. Students take turns selecting two cards to turn over. If the cards are a match, the student takes those two cards out of the grid. If the cards are not a match, the cards are turned back to face down. The student who gathers the most matching pairs wins.

After playing Concentration, the cards can be collected. Distribute the Place Value Equivalent Expressions student page. Students need to record the equivalent forms of the numbers. Teams or individuals can be assigned different rows to complete and share with each other or present to the class.

Cards to sort/Match

| 637 | six hundred thirty seven |
| :---: | :---: |
| * | $t$ |
| $600+30+7$ | $\begin{aligned} & 6 \text { hundreds, } 3 \\ & \text { tens, } 7 \text { ones } \end{aligned}$ |
| $\mathbf{5 0 0}+\mathbf{1 3 0}+\mathbf{7}$ | 420 |
| + | $\star$ |
| four hundred twenty | 400 + 20 |
| $t$ | $t$ |
| 4 hundreds, 8 tens, 3 ones |  |


| $\begin{gathered} 4 \text { hundreds, } 2 \\ \text { tens } \end{gathered}$ | 42 tens |
| :---: | :---: |
| 999 | Nine hundred ninety nine |
| $900+90+9$ | 9 hundreds, 9 tens, 9 ones |
| $900+80+19$ | $705$ |



| $600+90+15$ | 7 hundreds, 5 ones |
| :---: | :---: |
| 400 + 80 + $\mathbf{3}$ | 483 |
| + | $t$ |
| four hundred eighty three | 48 tens + 3 |
| $\rightarrow$ | ones + |

