

Topics: Number Systems, Equivalents, Ancient Rome

## Materials List

$\checkmark$ Blank cubes (16 cubes total; 8 each of 2 colors, if possible)
$\checkmark$ Markers (permanent markers are required if using plastic cubes)
$\checkmark$ Timer
$\checkmark$ Paper \& pencil
This activity can be used to support the teaching of:

- Place Value \& Equivalents (Common Core Math Standards: Number and Operations in Base Ten, Grade 2, 1; Grade 3, 1; Grade 4, $1,2,3$; Grade 5, 1)
- Knowledge and understanding of the past (National Curriculum for Social Studies: Theme 2, Time, Continuity, and Change)

| Number | Roman |
| :---: | :---: |
| $\mathbf{1}$ | I |
| 5 | V |
| 10 | X |
| 50 | L |
| 100 | C |
| 500 | D |
| 1000 | M |

## E PLURIBUS UNUM

Out of Many Dice, One Number



Students will quickly learn Roman numerals and modern equivalents by playing this fast-paced dice game.

## Assembly

Make the game dice by writing regular digits on each side of at least 8 cubes and Roman numerals on each side of 8 other cubes. Underline all " 6 " and " 9 " digits.

Note: each set of dice can contain any numbers. Here are some suggestions:

| Number Dice |  |  |  |  | Roman Numeral Dice |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0 | 0 | 1 | 2 | 3 | I | I | II | II | III | III |
| 0 | 0 | 1 | 1 | 2 | 2 | I | II | III | IV | IV | V |
| 1 | 2 | 3 | 4 | 5 | 6 | V | VI | IX | X | XX | XX |
| 1 | 2 | 3 | 4 | 5 | 6 | C | C | CC | CCC | XC | CD |
| 4 | 5 | 6 | 7 | 8 | 9 | V | VII | XIII | XXX | XL | L |
| 4 | 5 | 6 | 7 | 8 | 9 | CD | D | CM | M | MM | MM |

Playing the Game (for any number of players, 2-4 is optimal)

1. Present or review the Roman numeral system. (See the RAFT Idea Sheet Roman Numeral Dice for an introductory activity)
2. Roll each set of dice onto a playing surface, keeping all Roman numeral dice close together and all number dice close together.
3. During each round (1 minute), players search for equivalents. Players write down all found equivalents in number form on a list.
4. For each equivalent created, players must use at least 3 dice. Example: "V" and " 5 " are equivalent, but as only 2 dice are used; this equivalent is not acceptable.
5. The player with the highest number of acceptable equivalents wins the round.

| Example roll with |
| :--- |
| MANY possible |
| acceptable numbers: |



## Acceptable entries:

```
10 (X = 1, 0)
200 (CC = 2, 0, 0)
102 (C, II = 1, 0, 2)
1005 (M, V = 1, 0, 0, 5)
```

Web Resources (Visit www.raft.net/raft-idea?isid=130 for more resources!)
Roman numeral system - information and activities - http://www.romannumerals.org/index.html \& http://www.romannumerals.co.uk/index.html

