#### ALGEBRA

## TILES

$$3(x-1) = 3x-3$$

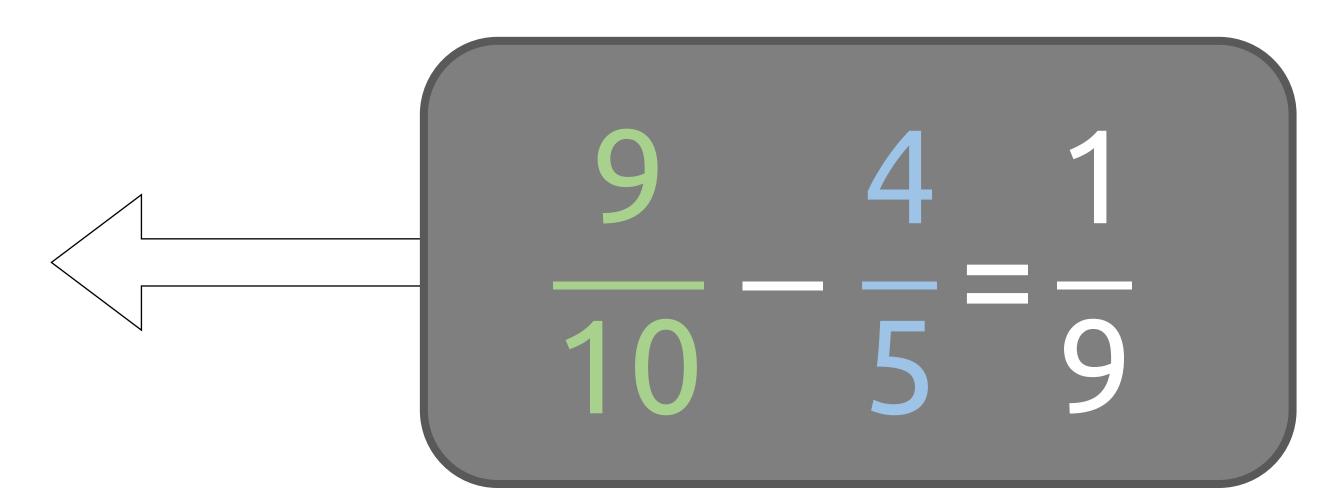




x-1

# CUISENAIRE

RODS

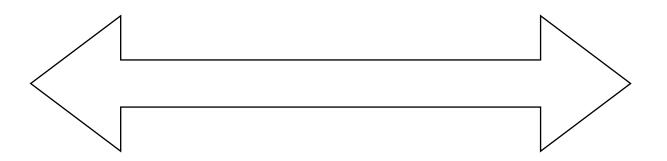


#### BAR

# MODELS

6			
6	6	6	
6	6	6	6

8 parts = 48  
1 part = 
$$\frac{48}{8}$$
 = 6



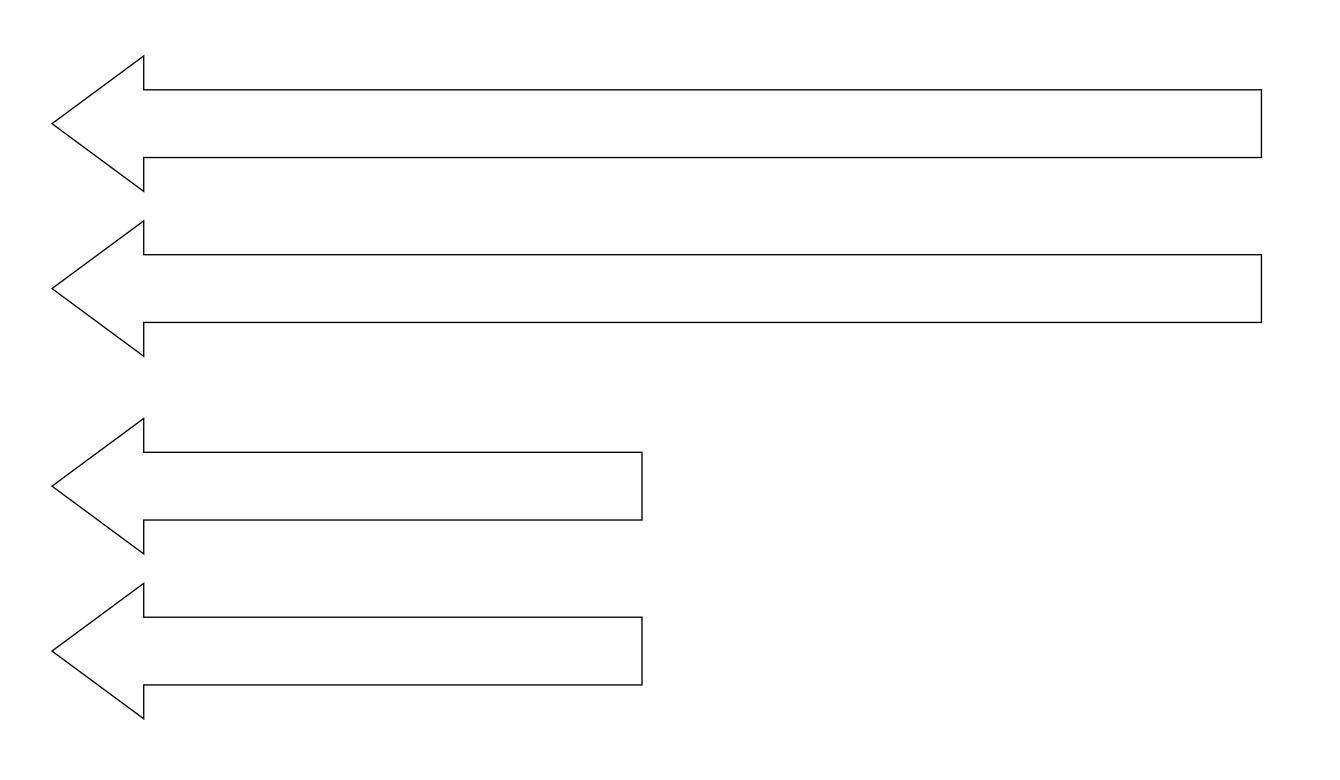
#### 48 in the ratio 1

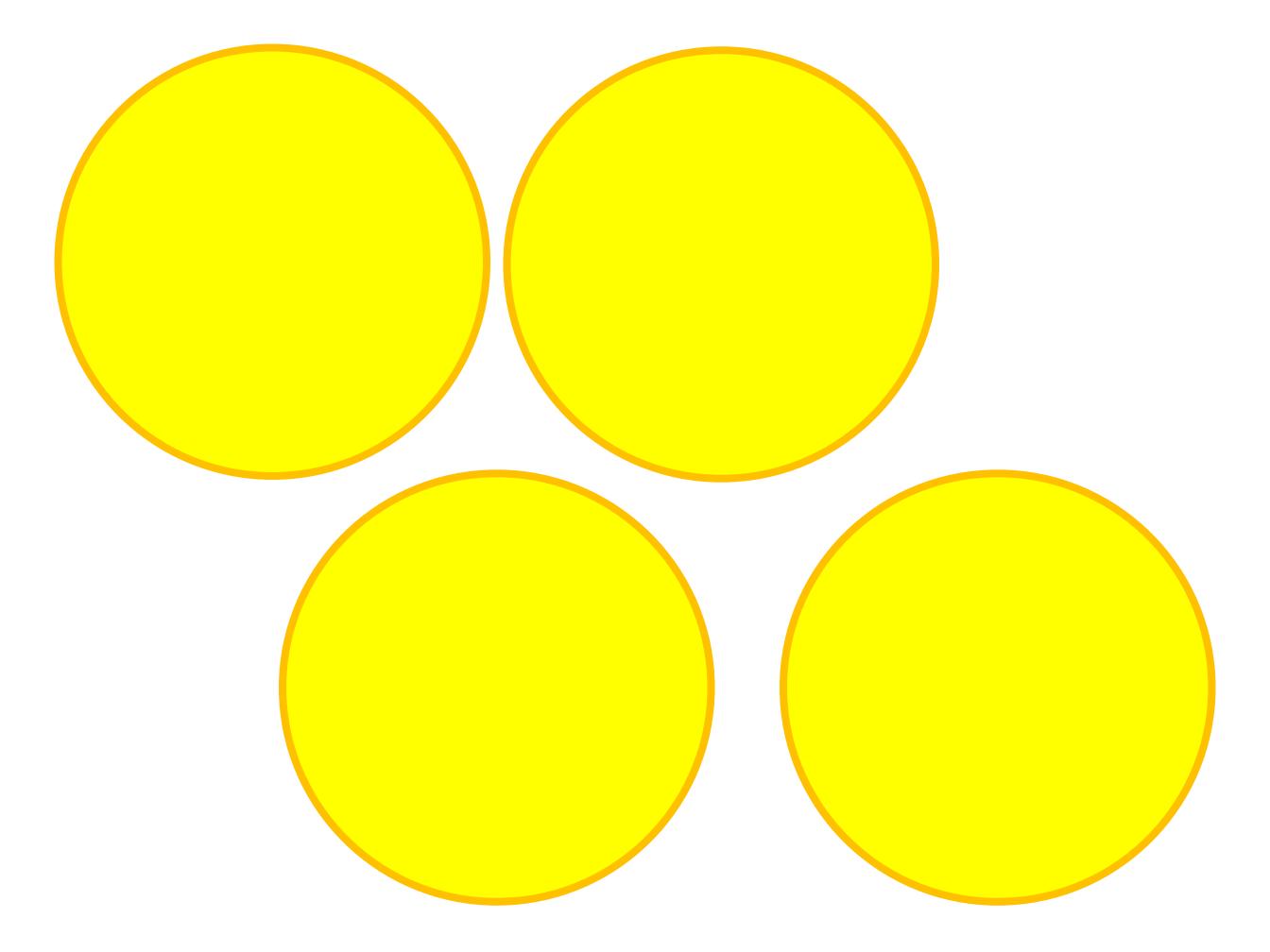
$$: 3: 4 = 6: 18: 24$$

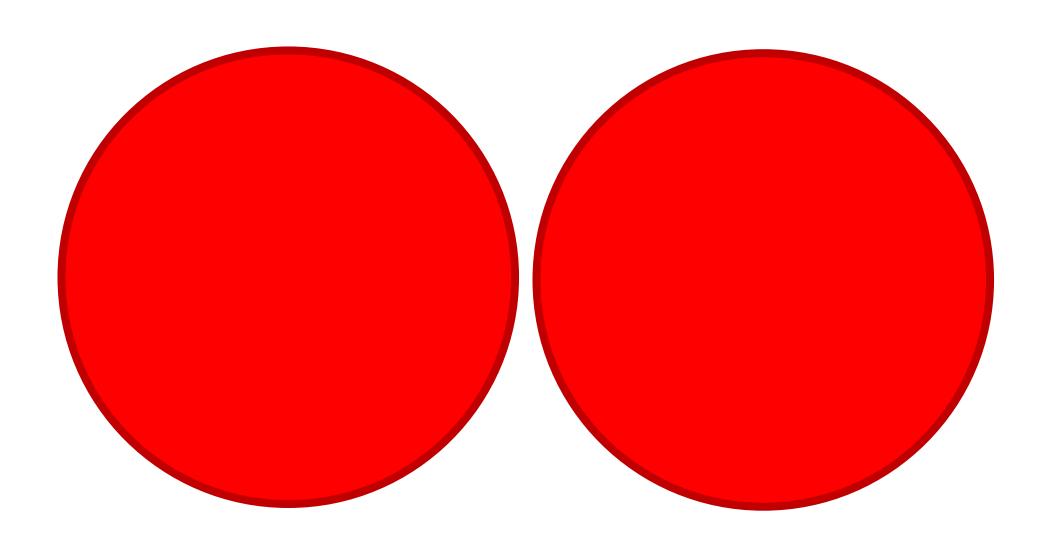
#### DOUBLE-

#### SIDED

COUNTERS







Zero-Pair

$$4 + (-2) = 2$$

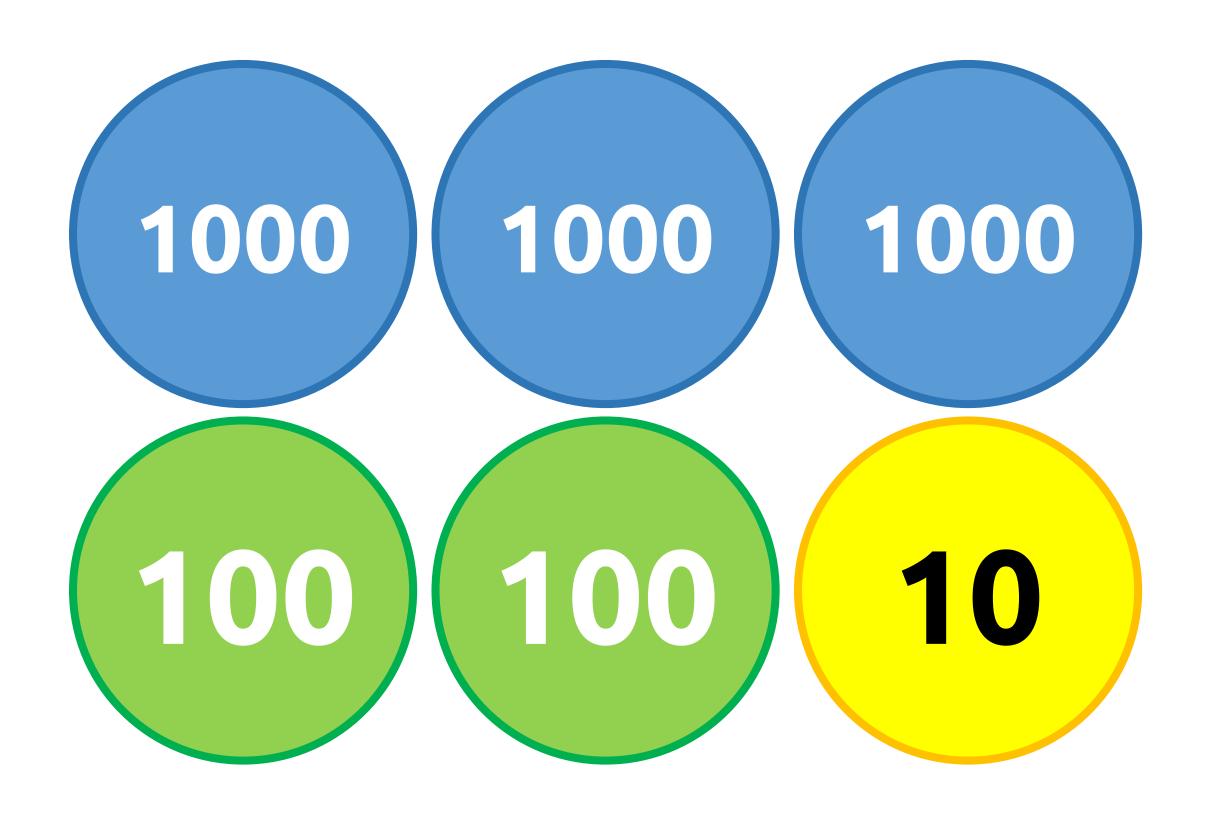
#### PLACE

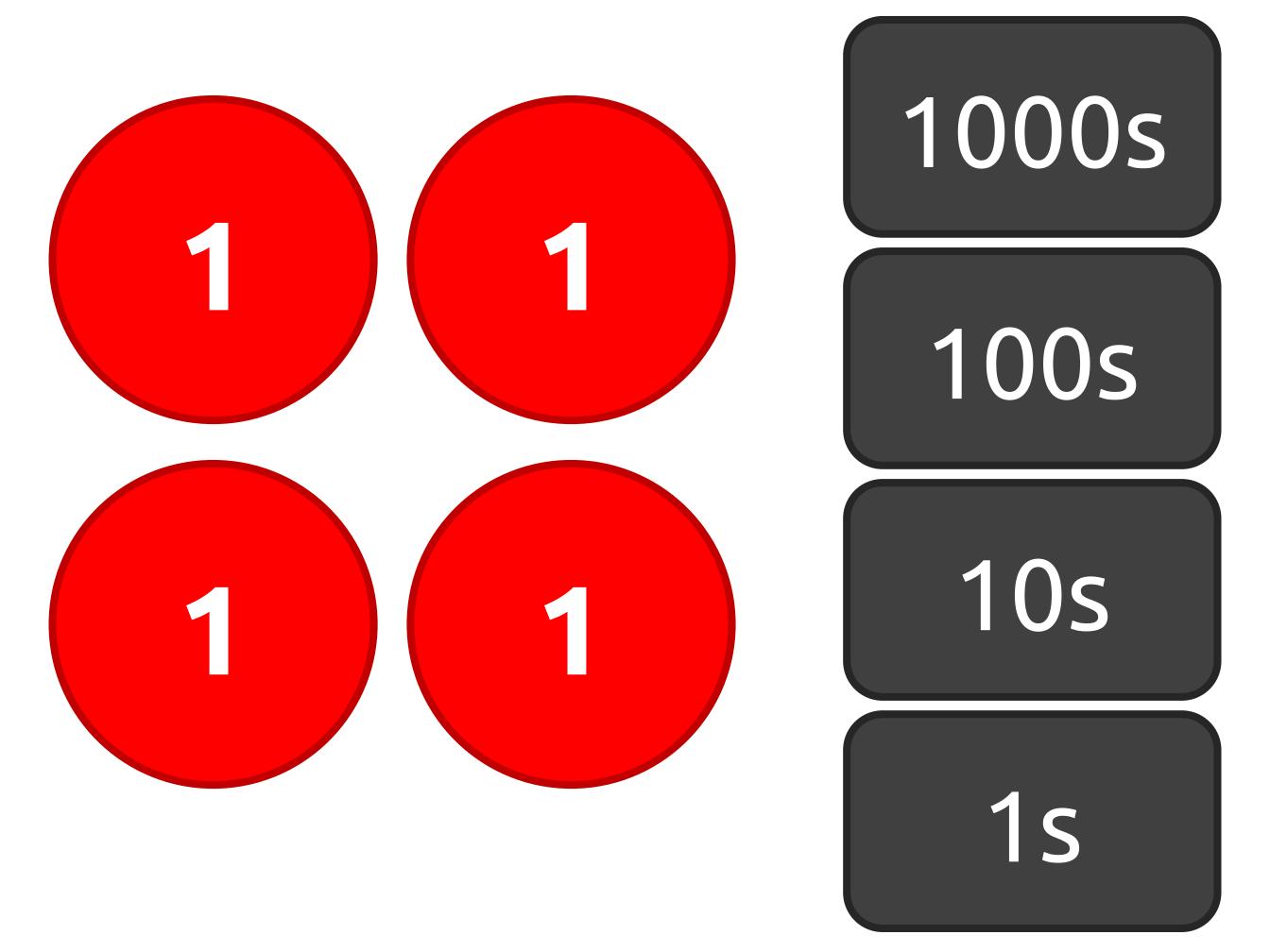
#### VALUE

COUNTERS

#### 3000+200

$$+10+4=3214$$





#### PRIME

## FACTOR

TILES

2 3 5

7 11 13