

# Beyond the Algorithm: Building a Conceptual Understanding of Division

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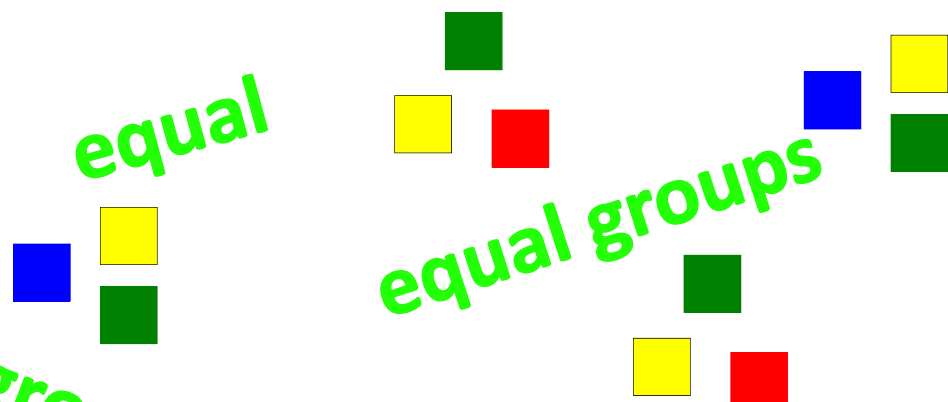
$$6,412 \div 4$$



equal  
groups

equal groups

repeated addition  
equation

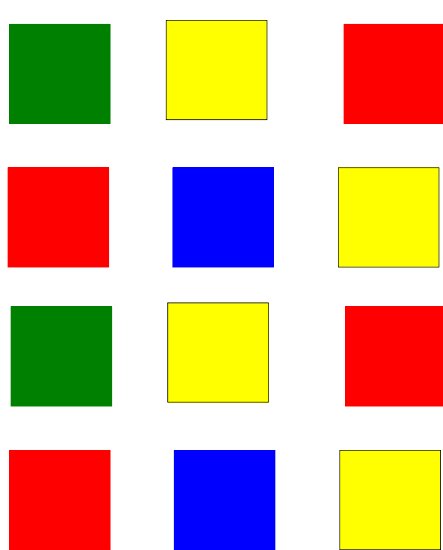


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array

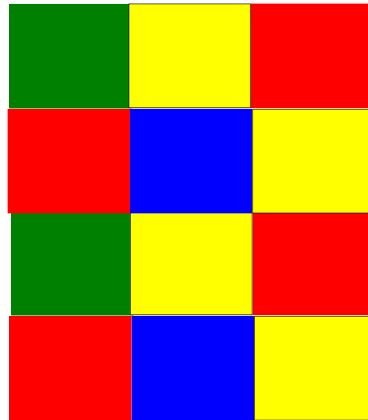
row

column

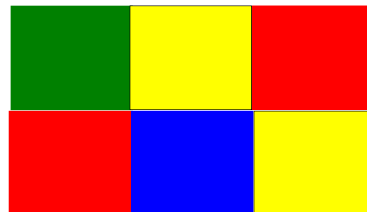


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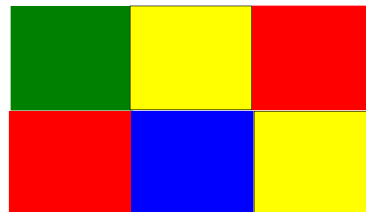
array  
row  
column



4 threes

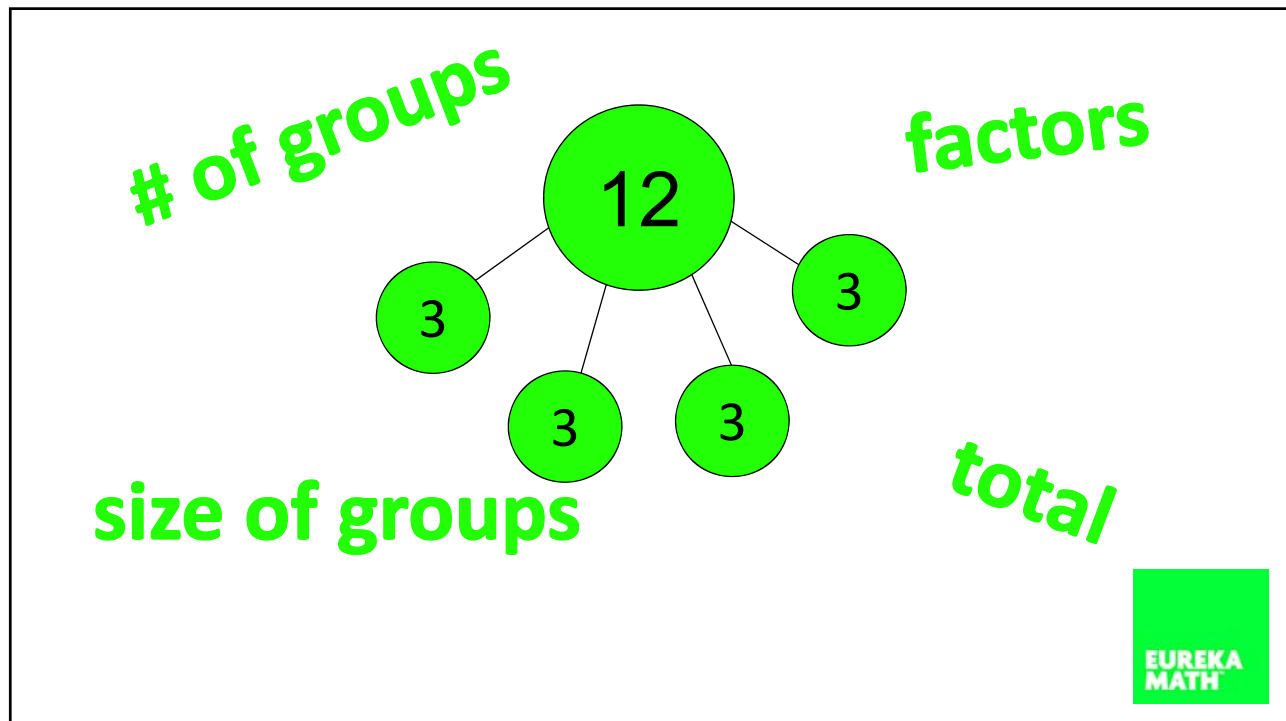
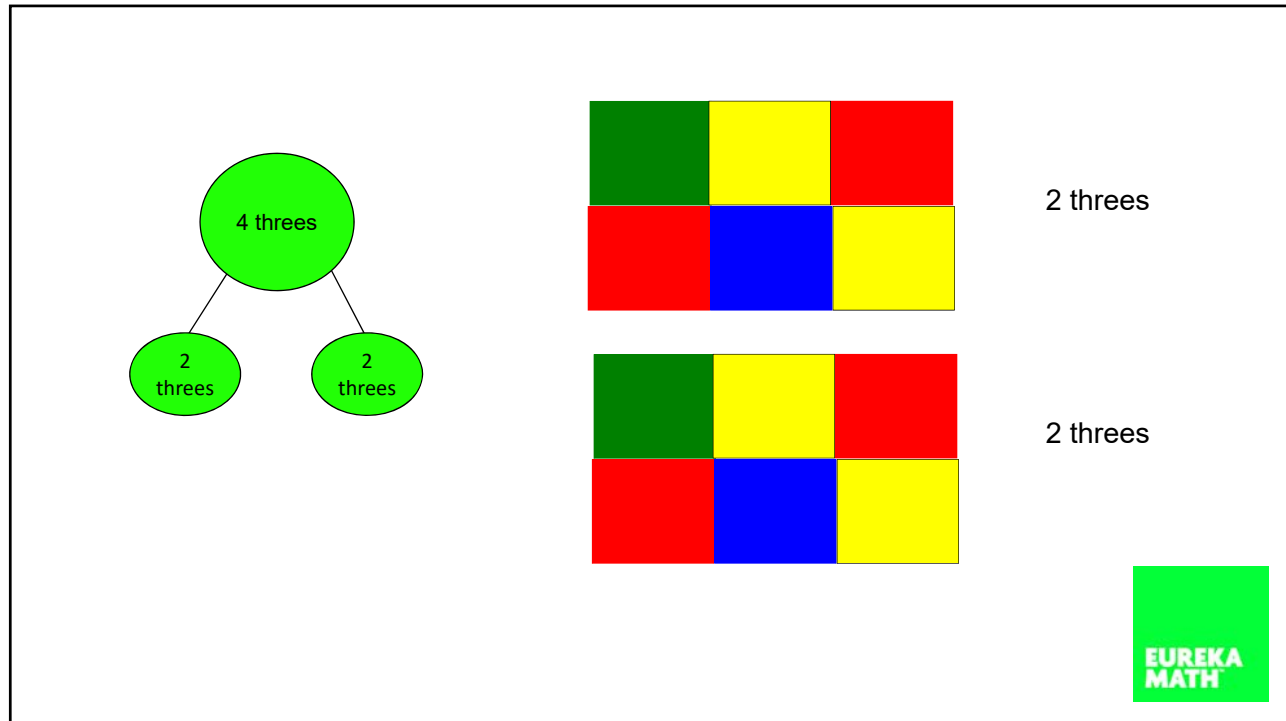


2 threes



2 threes





**# of groups**

**distribute**

**size of groups**


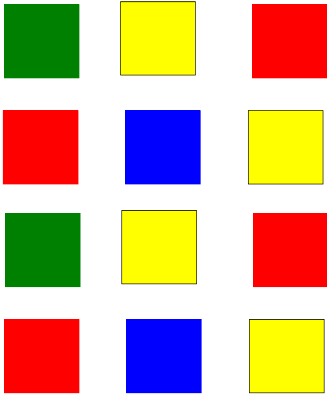
**factors**

**divide**

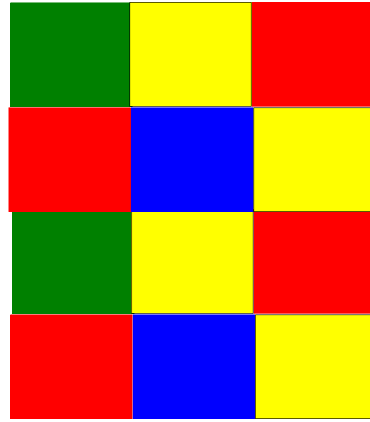
**total**



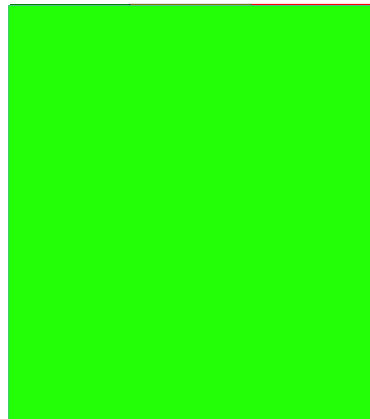
**area**

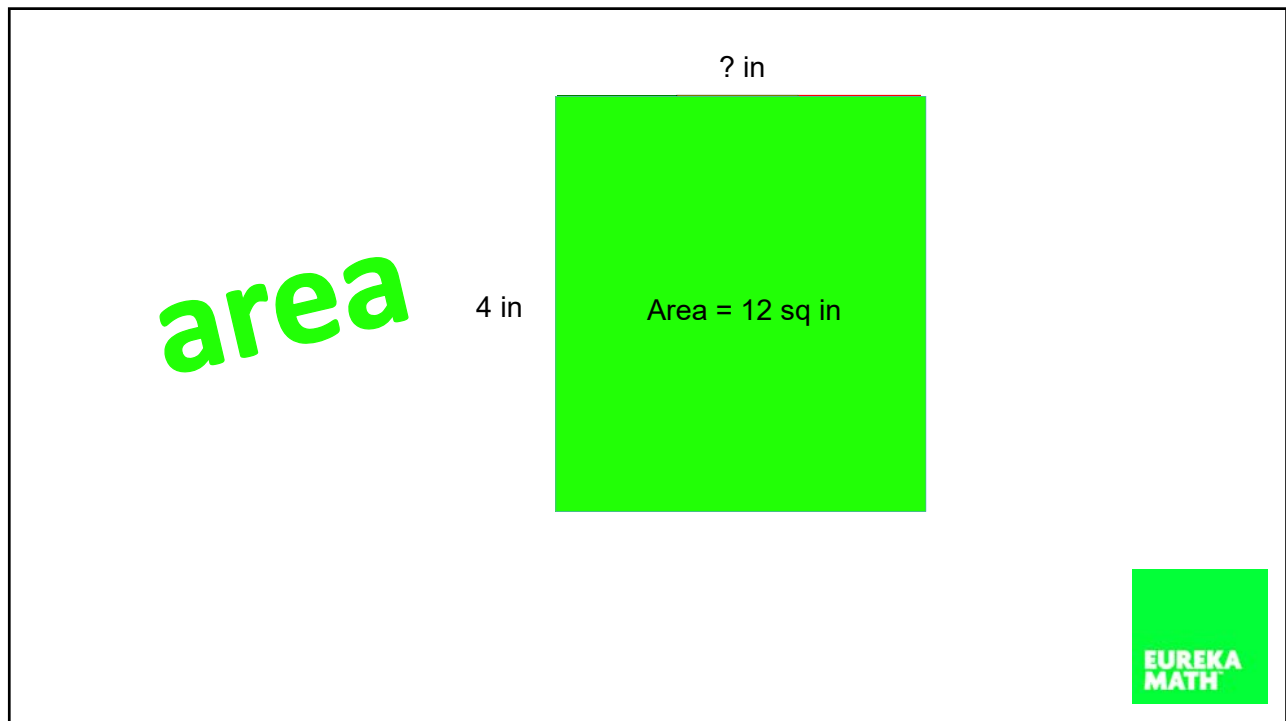
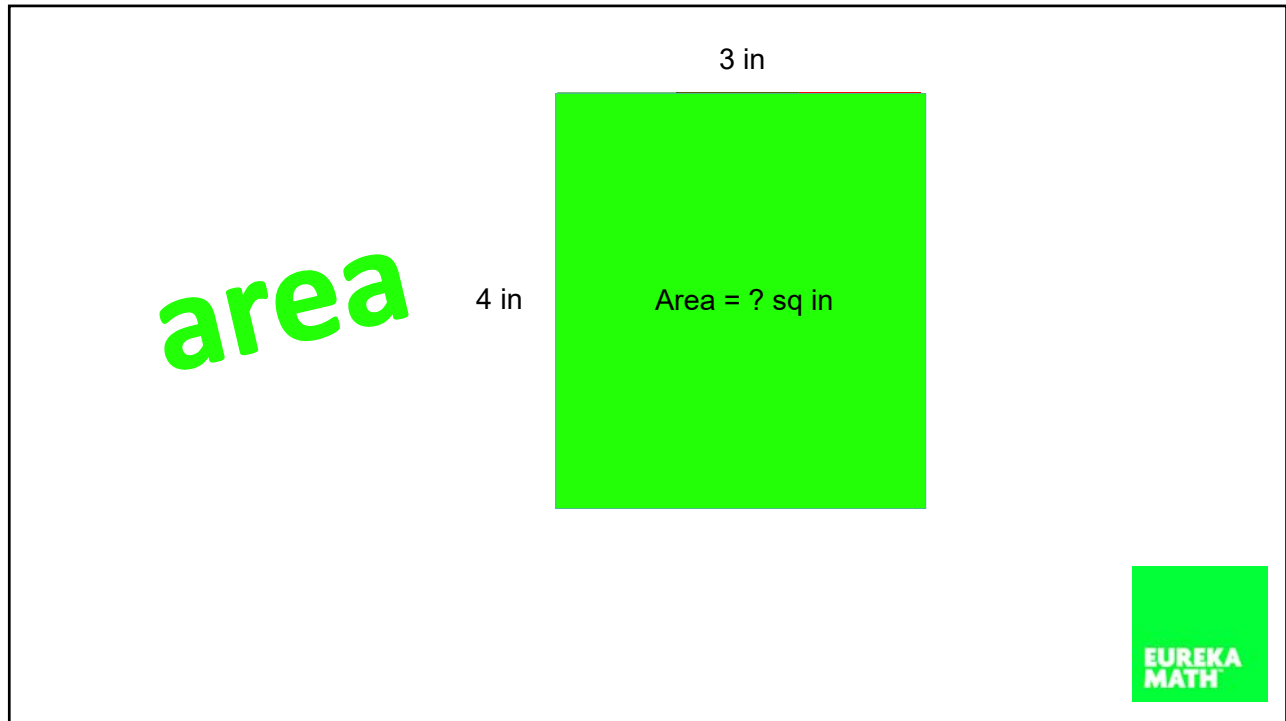


area

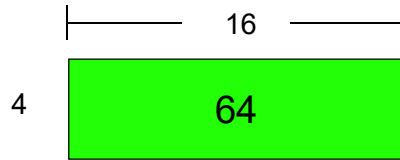


area

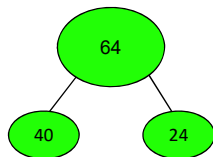
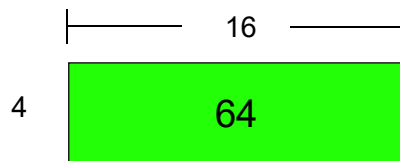




*area model*

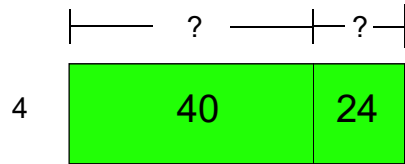
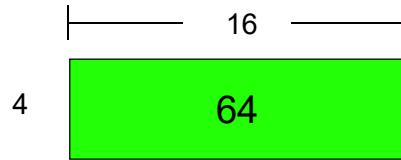
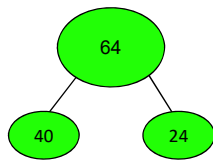


*area model*





*area model*



$$(40 \div 4) + (24 \div 4)$$

$$10 + 6 = 16$$

**EUREKA  
MATH™**

$$84 \div 4$$

**EUREKA  
MATH™**

# unit form



$$8 \div 2$$

$$80 \div 2$$


$$800 \div 2$$

$$8,000 \div 2$$




hundreds	tens	ones

$84 \div 4$




hundreds	tens	ones

$52 \div 4$




hundreds	tens	ones

$453 \div 4$



hundreds	tens	ones

$964 \div 4$



$$126 \div 4$$



$$6,412 \div 4$$



# Thank you



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