

## COMMON CORE MATHEMATICS


# Multiplication & Division Number Talks Strategies Posters

24 FULL COLOR  
POSTERS

MULTIPLICATION STRATEGY

### Partial Products

Break one factor into expanded notation, then use distributive property to multiply.



$$3 \times 16$$

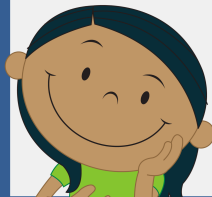
$$3 \times (10 + 6) = 30 + 18$$

$$3 \times 16 = 48$$

DIVISION STRATEGY

### Multiplying Up

Use the multiples of the divisor to find the total dividend.



$$65 \div 5$$

$$5 \times 10 = 50$$

$$5 \times 3 = 15$$


$$5 \times 13 = 65$$

$$65 \div 5 = 13$$

MULTIPLICATION STRATEGY

### Repeated Addition

Repeated addition of one factor by the number of times of the other factor.



$$4 \times 9$$

$$9 + 9 + 9 + 9$$


$$18 + 18$$

$$36$$

DIVISION STRATEGY

### Partial Quotient

Break the dividend into parts divisible by the divisor.



$$56 \div 4$$

Think...


$$(40 \div 4) + (16 \div 4)$$

$$10 + 4 = 14$$

MULTIPLICATION STRATEGY

### Friendly Numbers

Use a friendly number to solve a more challenging problem.



$$2 \times 26$$

Think..  $2 \times 25 = 50$


Then..  $2 \times 26 = 50 + 2$

So..  $2 \times 26 = 52$

MULTIPLICATION STRATEGY

### Breaking Factors into Smaller Factors

Break factors into smaller factors, then apply the associative property.



$$8 \times 25$$

$$\text{So.. } 2 \times 4 \times 25 =$$

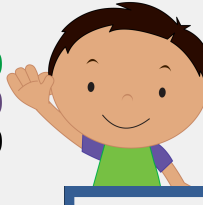
$$2 \times 100 =$$

$$400$$

DIVISION STRATEGY

### Repeated Subtraction

Repeated subtraction of the divisor until the difference is less than the divisor.



$$120 \div 40$$

$$120 - 40 = 80$$

$$80 - 40 = 40$$


$$40 - 40 = 0$$

$$120 \div 40 = 3$$

MULTIPLICATION STRATEGY

### Doubling & Halving

Double one factor and halve the other to simplify a problem.

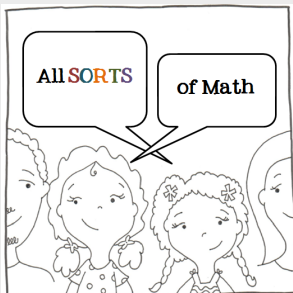


$$4 \times 125$$

So..  $4 \times 125 =$

$$2 \times 250 =$$

$$1 \times 500 =$$

$$500$$


Created by  
**ALL SORTS OF MATH**

## MULTIPLICATION STRATEGY

# Friendly Numbers

Use a friendly number to solve a more challenging problem.

$$2 \times 26$$

*Think..*  $2 \times 25 = 50$

*Then..*  $2 \times 26 = 50 + 2$



*So..*  $2 \times 26 = \underline{52}$



## MULTIPLICATION STRATEGY

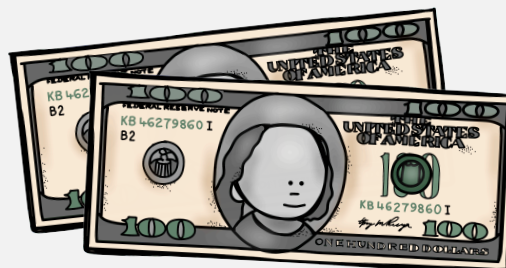
# Friendly Numbers

Use a friendly number to solve a more challenging problem.

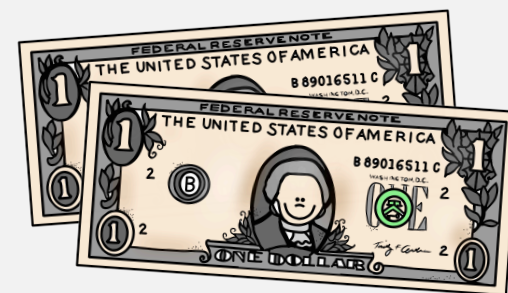
$$2 \times 99$$

*Think..*  $2 \times 100 = 200$

*Then..*  $2 \times 99 = 200 - 2$



-



*So..*  $2 \times 99 = \underline{198}$



## MULTIPLICATION STRATEGY

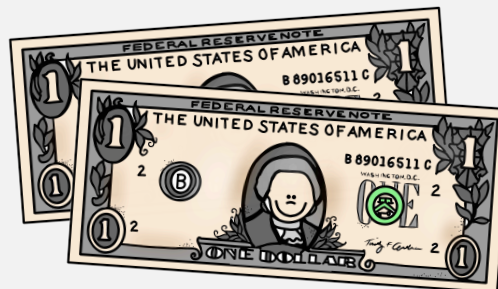
# Friendly Numbers

Use a friendly number to solve a more challenging problem.

$$2 \times 0.99$$

Think..  $2 \times 1.00 = 2.00$

Then..  $2 \times 0.99 = 2.00 - 0.02$



-



So..  $2 \times 0.99 = \underline{1.98}$





## MULTIPLICATION STRATEGY

# Partial Products

Break one factor into expanded notation, then use distributive property to multiply.

$$3 \times 16$$

$$3 \times (10 + 6) = 30 + 18$$

10

6

3

30

18

$$3 \times 16 = \underline{48}$$



## MULTIPLICATION STRATEGY

# Partial Products

Break one factor into expanded notation, then use distributive property to multiply.

$$6 \times 325$$

$$6 \times (300 + 20 + 5) =$$

$$1800 + 120 + 30$$

300

20

5

6	1800	120	30
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$$6 \times 325 = \underline{1950}$$



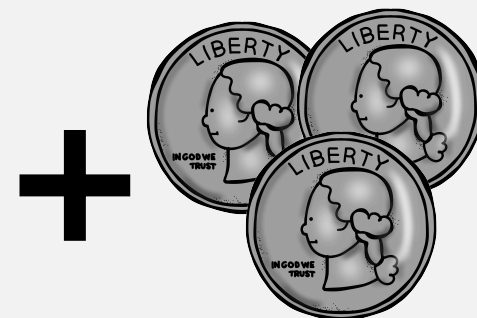
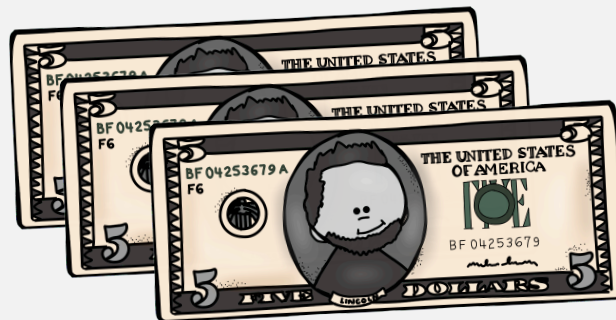
## MULTIPLICATION STRATEGY

# Partial Products

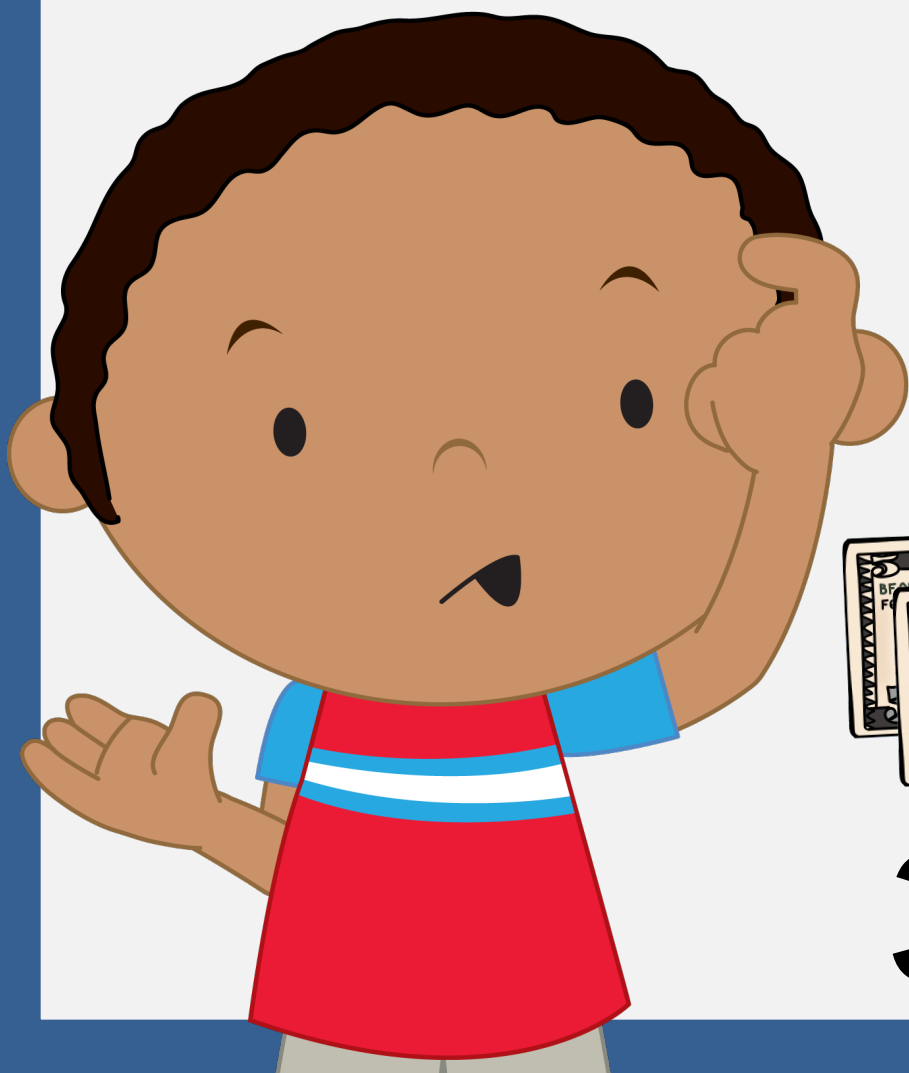
Break one factor into expanded notation, then use distributive property to multiply.

$$3 \times 5.25$$

$$3 \times (5.00 + 0.25) =$$
$$15.00 + 0.75$$



$$3 \times 5.25 = \underline{15.75}$$

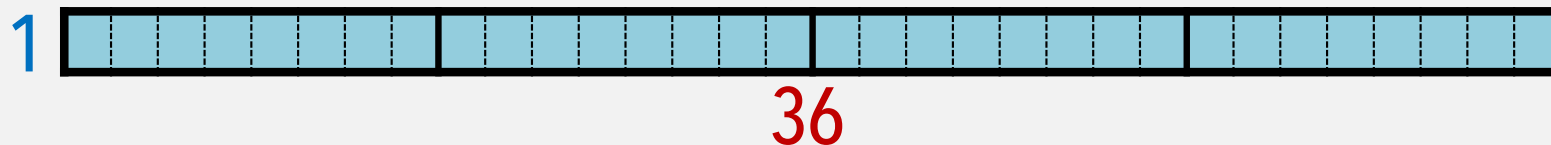
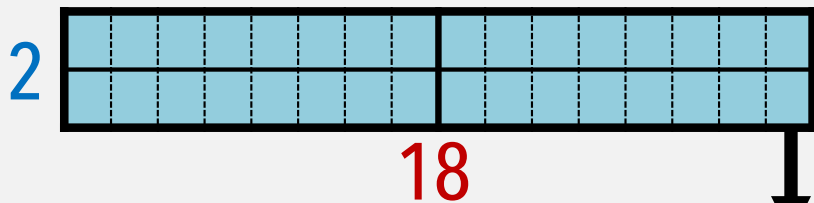
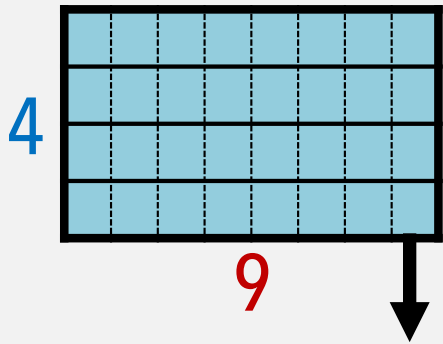


## MULTIPLICATION STRATEGY

# Doubling & Halving

Double one factor and halve the other to simplify a problem.

$$4 \times 9$$



So..  $4 \times 9 =$

$$2 \times 18 =$$

$$1 \times 36 =$$

$$\underline{36}$$



## MULTIPLICATION STRATEGY

# Doubling & Halving

Double one factor and halve the other to simplify a problem.

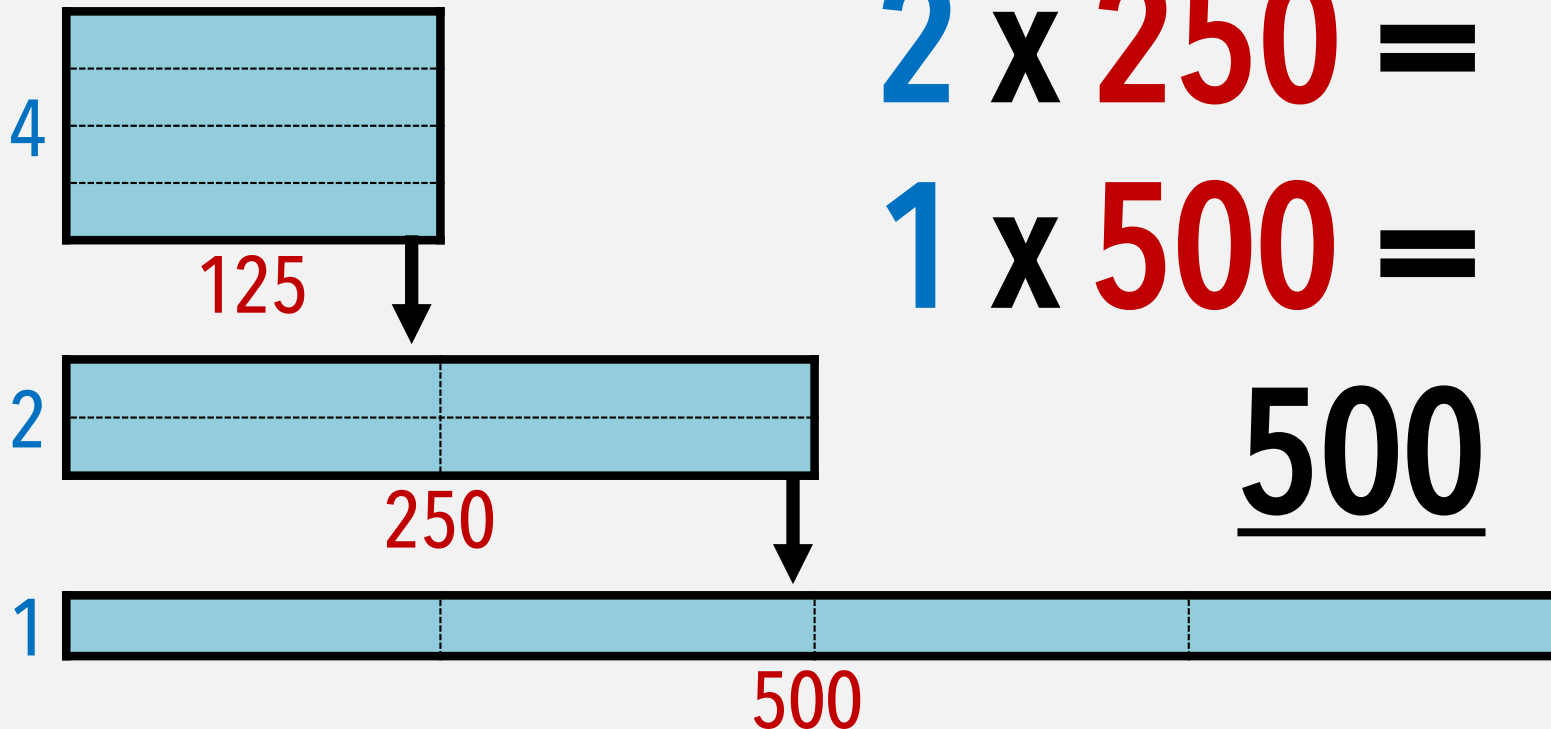
$$4 \times 125$$

So..  $4 \times 125 =$

$$2 \times 250 =$$

$$1 \times 500 =$$

$$\underline{500}$$



## MULTIPLICATION STRATEGY

# Breaking Factors into Smaller Factors

Break factors into smaller factors, then apply the associative property.

$$8 \times 5$$

$$\text{So.. } 2 \times 4 \times 5 =$$

$$2 \times 20 =$$

$$\underline{40}$$





## MULTIPLICATION STRATEGY

# Breaking Factors into Smaller Factors

Break factors into smaller factors, then apply the associative property.

$$8 \times 25$$

So..  $2 \times 4 \times 25 =$

$$2 \times 100 =$$

$$\underline{400}$$



## MULTIPLICATION STRATEGY

# Repeated Addition

Repeated addition of one factor by the number of times of the other factor.



$$4 \times 9$$

$$\begin{array}{r} 9 + 9 + 9 + 9 \\ \underbrace{\hspace{1.5cm}} \quad \underbrace{\hspace{1.5cm}} \\ 18 \quad + \quad 18 \\ \underbrace{\hspace{3cm}} \\ 36 \end{array}$$

## MULTIPLICATION STRATEGY

# Repeated Addition

Repeated addition of one factor by the number of times of the other factor.



$$4 \times 25$$

$$\begin{array}{ccccccc} 25 & + & 25 & + & 25 & + & 25 \\ \underbrace{\hspace{1.5cm}} & & & & \underbrace{\hspace{1.5cm}} & & \\ 50 & & + & & 50 & & \\ \underbrace{\hspace{3cm}} & & & & & & \\ 100 & & & & & & \end{array}$$

## DIVISION STRATEGY

# Repeated Subtraction

Repeated subtraction of the divisor until the difference is less than the divisor.

$$12 \div 4$$

$$12 - 4 = 8$$

$$8 - 4 = 4$$

$$4 - 4 = 0$$

$$12 \div 4 = \underline{3}$$



## DIVISION STRATEGY

# Repeated Subtraction

Repeated subtraction of the divisor until the difference is less than the divisor.

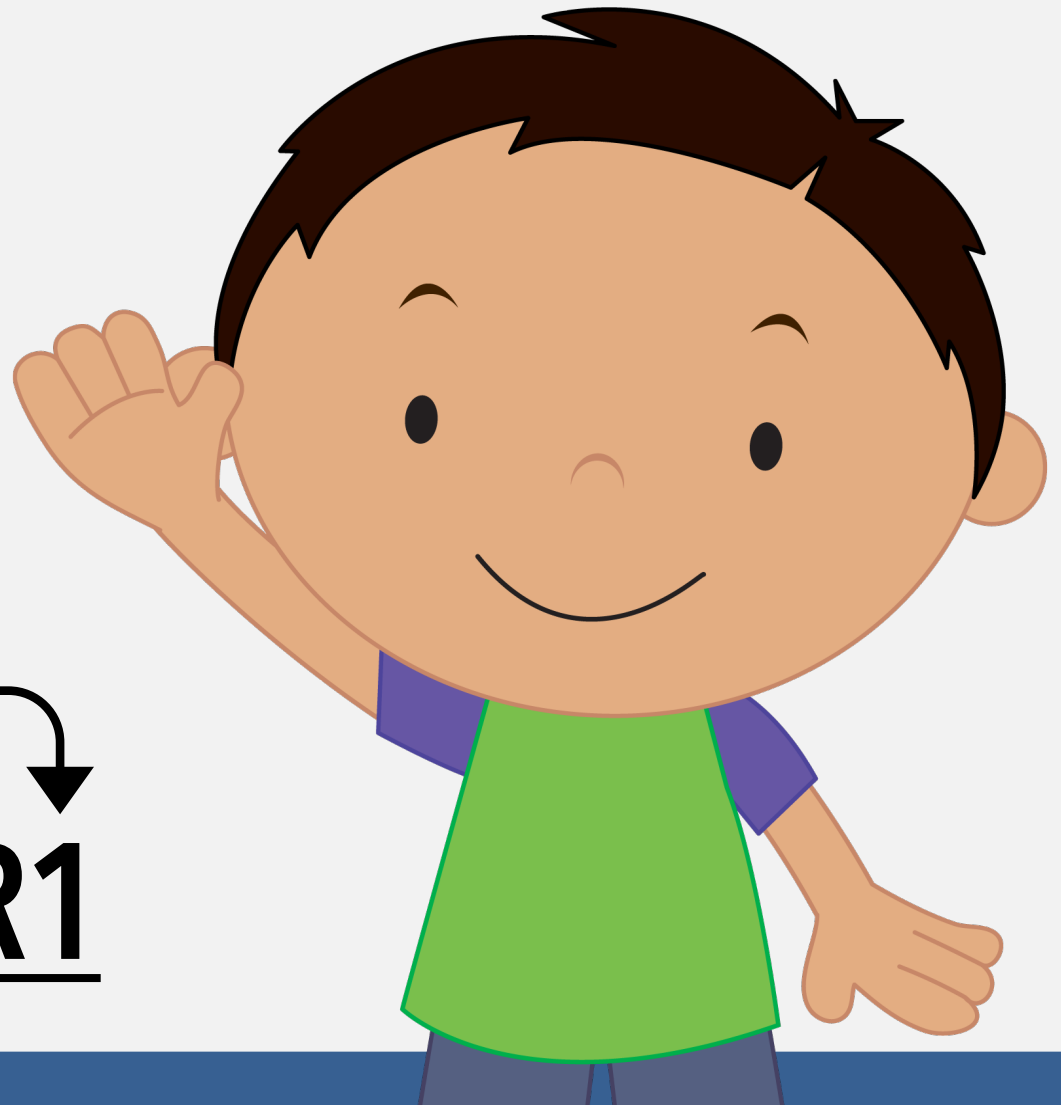
$$13 \div 4$$

$$13 - 4 = 9$$

$$9 - 4 = 5$$

$$5 - 4 = 1$$

$$12 \div 4 = \underline{3} \text{ R}1$$



## DIVISION STRATEGY

# Repeated Subtraction

Repeated subtraction of the divisor until the difference is less than the divisor.

$$120 \div 40$$

$$120 - 40 = 80$$

$$80 - 40 = 40$$

$$40 - 40 = 0$$

$$120 \div 40 = \underline{3}$$





## DIVISION STRATEGY

# Repeated Subtraction

Repeated subtraction of the divisor until the difference is less than the divisor.

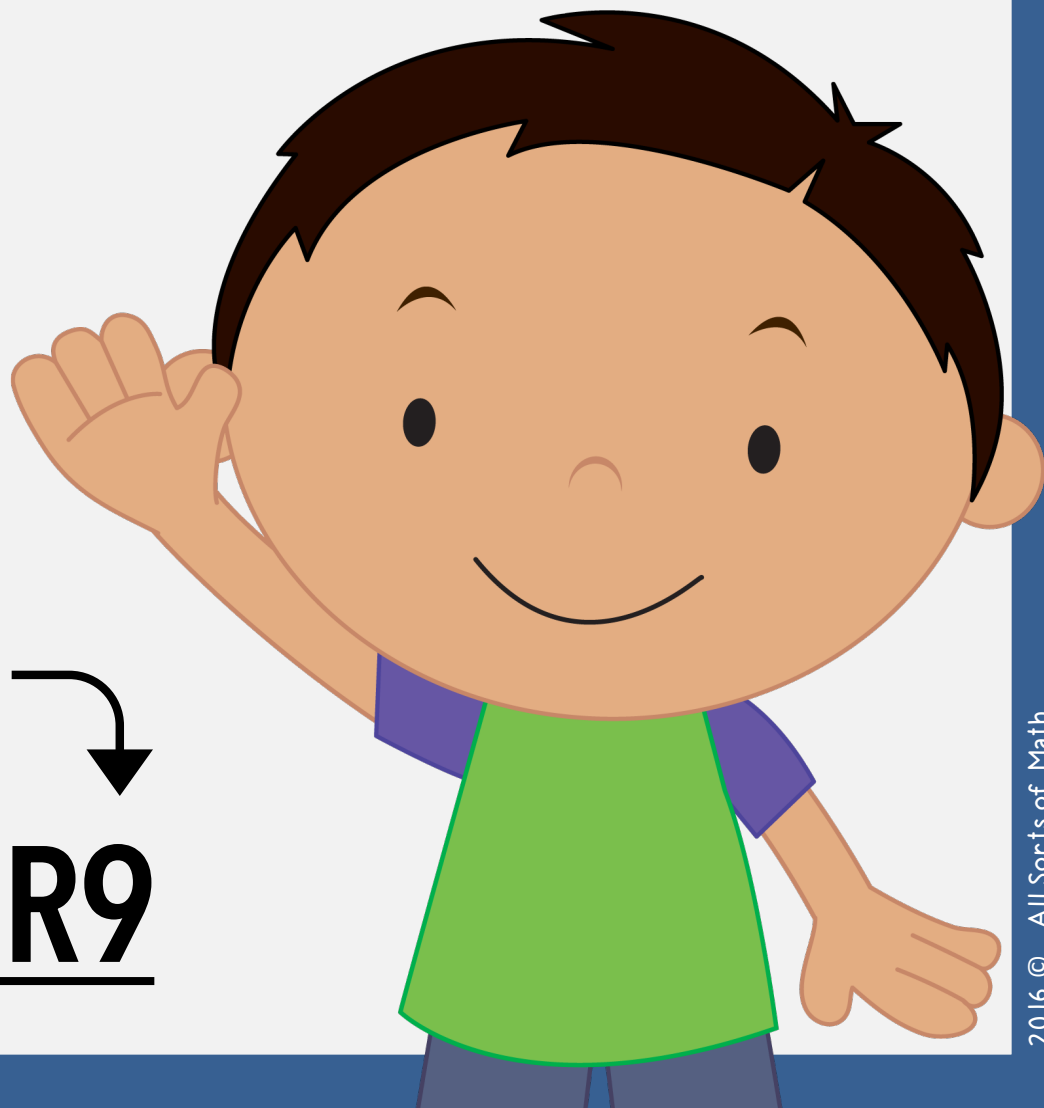
$$129 \div 40$$

$$129 - 40 = 89$$

$$89 - 40 = 49$$

$$49 - 40 = 9$$

$$120 \div 40 = \underline{3 \text{ R}9}$$

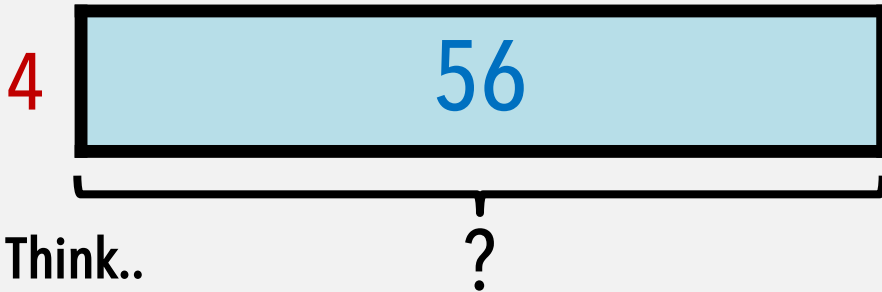


## DIVISION STRATEGY

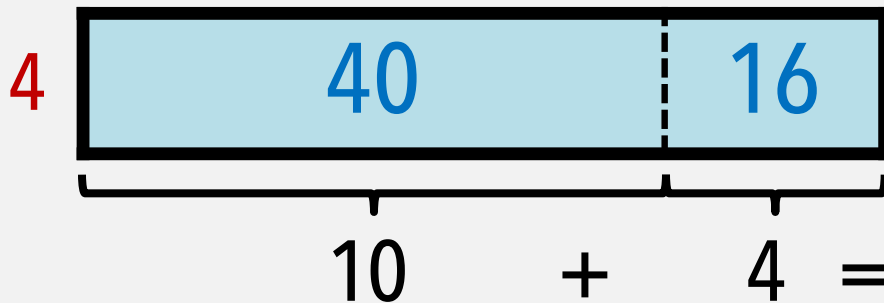
# Partial Quotient

Break the dividend into parts divisible by the divisor.

$$56 \div 4$$



$$(40 \div 4) + (16 \div 4)$$

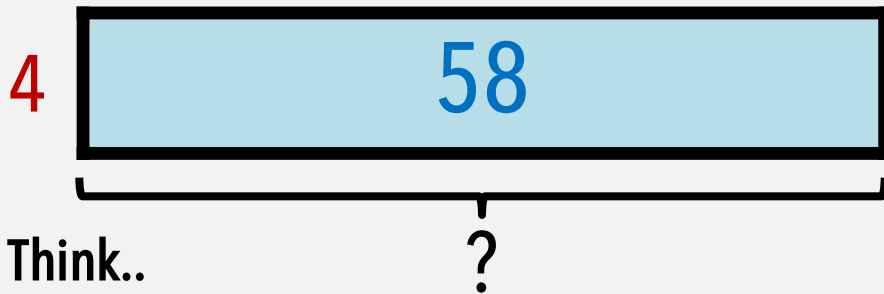


## DIVISION STRATEGY

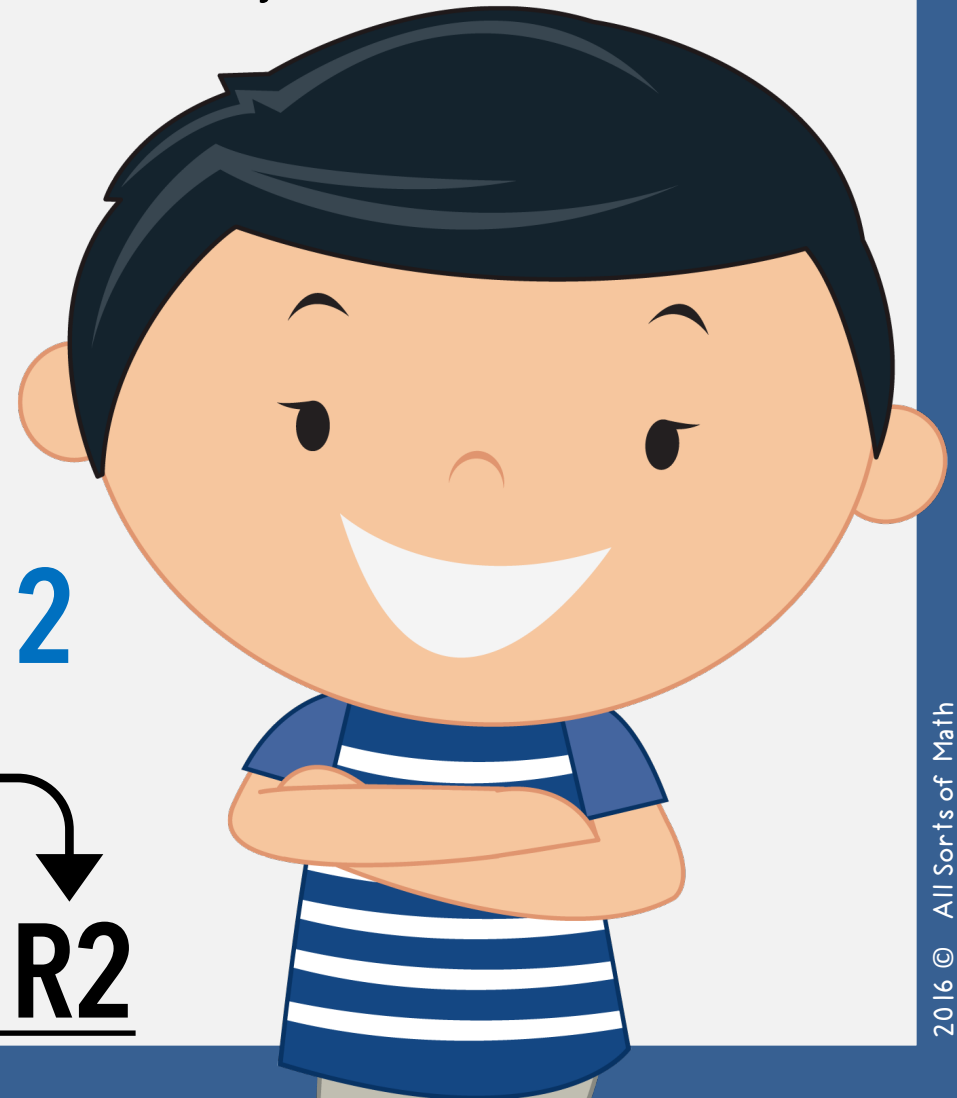
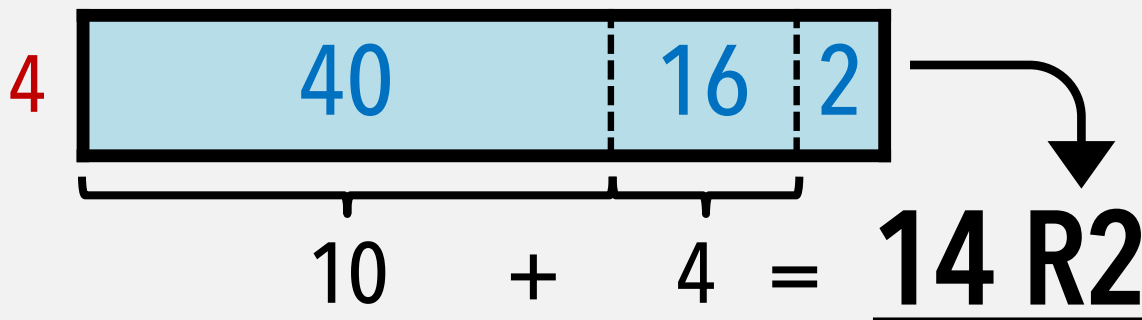
# Partial Quotient

Break the dividend into parts divisible by the divisor.

$$58 \div 4$$



$$(40 \div 4) + (16 \div 4) + 2$$



## DIVISION STRATEGY

# Partial Quotient

Break the dividend into parts divisible by the divisor.

$$420 \div 3$$

$$\begin{array}{r} 3 \overline{) 420} \end{array}$$

Think..

?

$$(300 \div 3) + (120 \div 3)$$

$$\begin{array}{r} 3 \overline{) 300 \quad 120} \end{array}$$

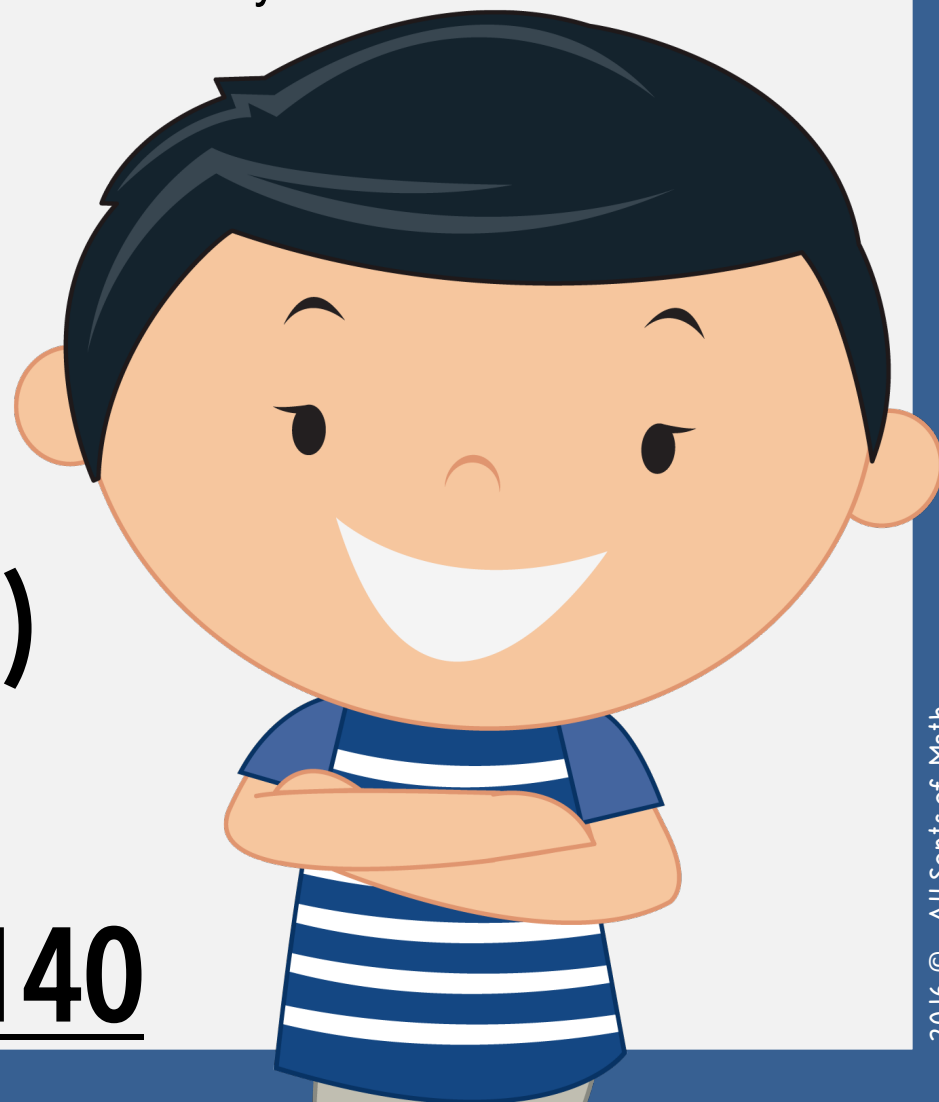
100

+

40

=

140



## DIVISION STRATEGY

# Partial Quotient

Break the dividend into parts divisible by the divisor.

$$422 \div 3$$

$$\begin{array}{r} 3 \overline{) 420} \end{array}$$

Think..

?

$$(300 \div 3) + (120 \div 3) + 2$$

$$\begin{array}{r} 3 \overline{) 300 \quad 120 \quad 2} \end{array}$$

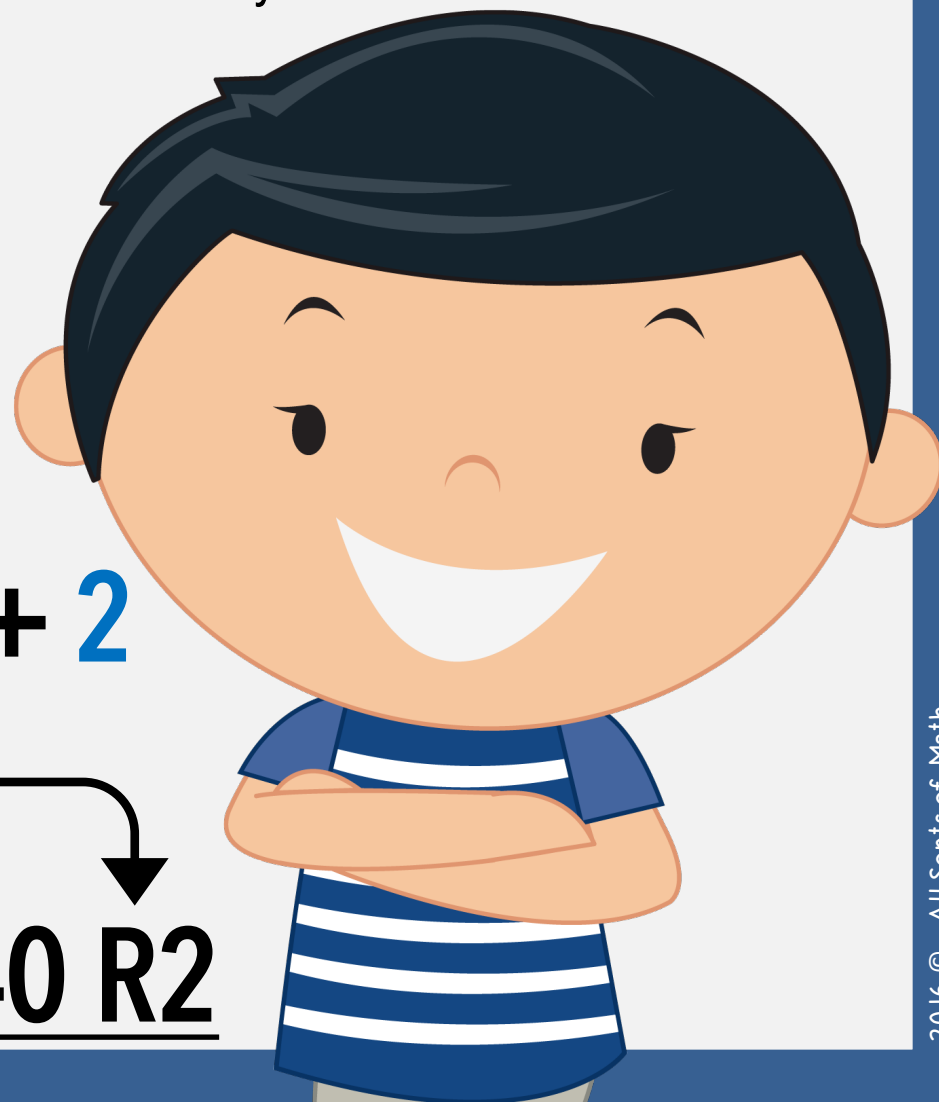
100

+

40

=

140 R2



## DIVISION STRATEGY

# Multiplying Up

Use the multiples of the divisor to find the total dividend.

$$65 \div 5$$

$$5 \times 10 = 50$$

$$5 \times \underline{3} = \underline{15}$$

$$5 \times 13 = 65$$

$$65 \div 5 = \underline{13}$$





## DIVISION STRATEGY

# Multiplying Up

Use the multiples of the divisor to find the total dividend.

$$67 \div 5$$

$$5 \times 10 = 50$$

$$5 \times \underline{3} = \underline{15}$$

$$5 \times 13 = 65$$

$$67 \div 5 = \underline{13} \text{ R}2$$



## DIVISION STRATEGY

# Multiplying Up

Using multiples of the divisor to find the total dividend.

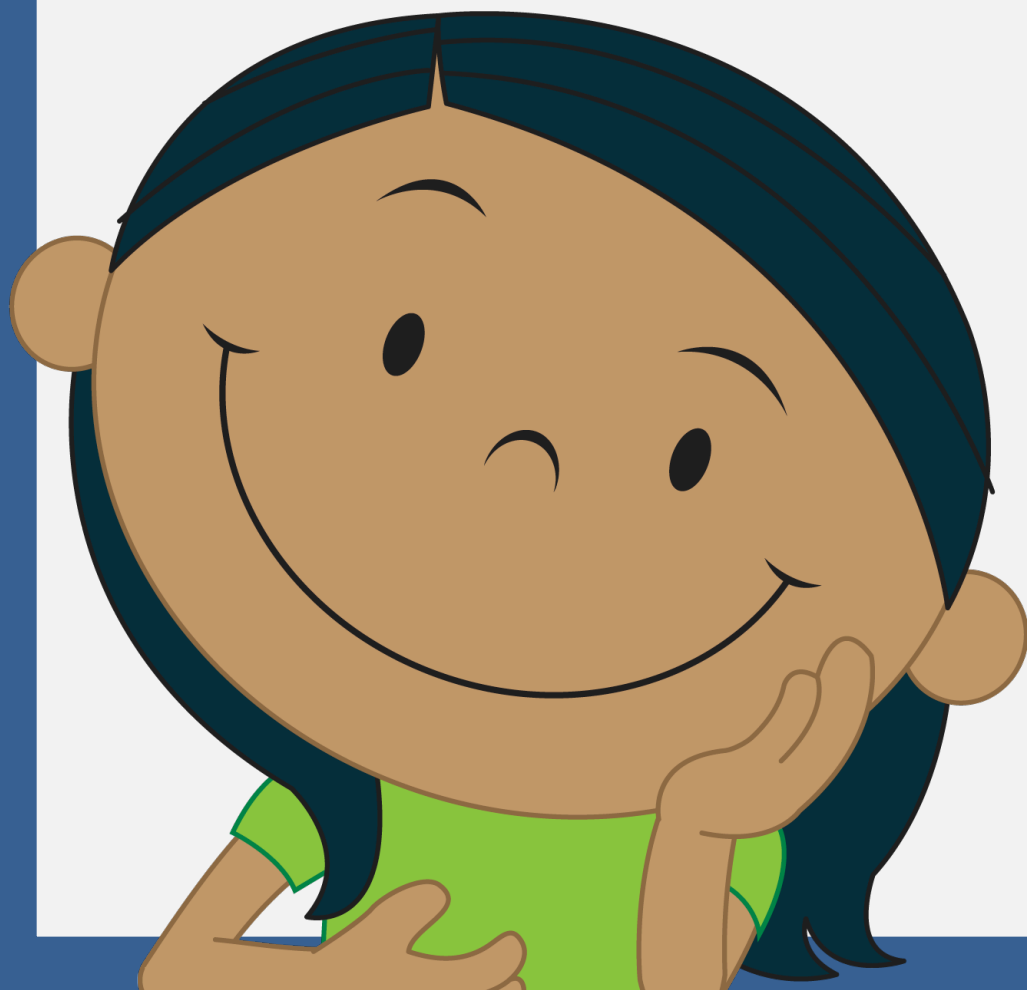
$$212 \div 4$$

$$4 \times 50 = 200$$

$$4 \times \underline{3} = \underline{12}$$

$$4 \times 53 = 212$$

$$212 \div 4 = \underline{53}$$



## DIVISION STRATEGY

# Multiplying Up

Use the multiples of the divisor to find the total dividend.

$$215 \div 4$$

$$4 \times 50 = 200$$

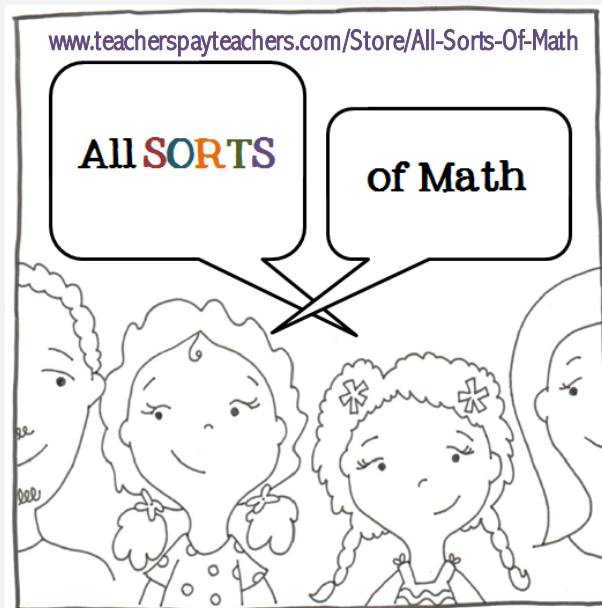
$$4 \times \underline{3} = \underline{12}$$

$$4 \times 53 = 212$$

$$215 \div 4 = \underline{53} \text{R} \underline{3}$$



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