

**TEXAS**

**4<sup>TH</sup> GRADE**

**PRIORITY  
MATH  
GOALS**

# I CAN MULTIPLY & DIVIDE

## I CAN MULTIPLY WITHIN

**100**  
 $2 \times 4$   $5 \times 10$   $8 \times 9$

## I CAN MULTIPLY 1-DIGIT BY 2-DIGIT NUMBERS

(I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models.)

**2 x 12**

## I can multiply 1-DIGIT BY 3-DIGIT NUMBERS

(I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models.)

**3 x 135**

## I CAN MULTIPLY 1-digit BY 4-digit NUMBERS

I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models.

**5 x 2678**

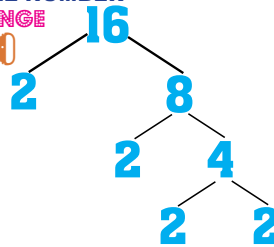
## I CAN MULTIPLY 2-DIGIT BY 2-DIGIT NUMBERS

I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models.

**12 x 12**

## I can find all FACTOR PAIRS

OF A WHOLE NUMBER  
IN THE RANGE  
OF 1-100



## I KNOW MULTIPLES

**2 4 6 8**

## I know if A NUMBER IS PRIME or composite

**5 is Prime**  
**12 is composite**

## I can divide within 100

	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

## I can divide 2-digit by 2-digit numbers

I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models.

$78 \div 5$

$10 \div 5$

**50 25**

Remainder of 3  
 $78 = 15 \times 5 + 3$

## I CAN DIVIDE 3-DIGIT BY 1-DIGIT NUMBERS.

I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models.

**135 ÷ 8**

**10 + 5 + 1**

**80**

**40**

**8**

Remainder of 7

**135 = 16 x 8 + 7**

## I CAN DIVIDE 4-DIGIT BY 1-DIGIT NUMBERS.

I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models

**1570/2**

**750 + 35**

**1500**

**70**

**785**

## I CAN SOLVE DIVISION PROBLEMS WITH REMAINDERS

**43 ÷ 7**

**6 x 7 + 1**

# I CAN MULTIPLY WITHIN

1 0 0

2 X 4   5 X 10   8 X 9

# I CAN MULTIPLY 1-DIGIT BY 2-DIGIT NUMBERS

(I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models.)

2 X 12

# I CAN MULTIPLY 1-DIGIT BY 3-DIGIT NUMBERS

(I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models.)

3 X 135

# I CAN MULTIPLY 1-digit BY 4-digit NUMBERS

I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models.

5 X 2678

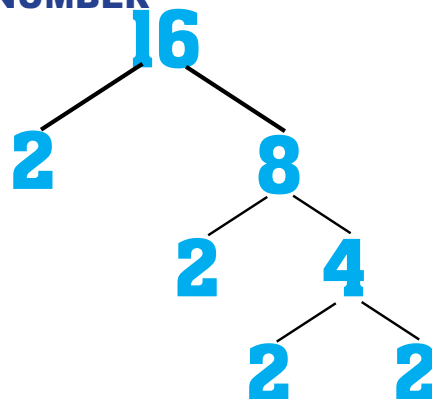
# I CAN MULTIPLY 2-DIGIT BY 2-DIGIT NUMBERS

I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models

12 x 12

# I can find all FACTOR PAIRS

OF A WHOLE NUMBER  
IN THE RANGE  
OF 1-100



# I KNOW MULTIPLES

2 4 6 8

I know if  
A NUMBER IS PRIME  
or composite

5 is Prime  
12 is composite

I can divide  
within 100

	0	1	2	3	4	5	6	7	8	9	10
= 0	0	0	0	0	0	0	0	0	0	0	0
= 1	0	1	2	3	4	5	6	7	8	9	10
= 2	0	2	4	6	8	10	12	14	16	18	20
= 3	0	3	6	9	12	15	18	21	24	27	30
= 4	0	4	8	12	16	20	24	28	32	36	40
= 5	0	5	10	15	20	25	30	35	40	45	50
= 6	0	6	12	18	24	30	36	42	48	54	60
= 7	0	7	14	21	28	35	42	49	56	63	70
= 8	0	8	16	24	32	40	48	56	64	72	80
= 9	0	9	18	27	36	45	54	63	72	81	90
= 10	0	10	20	30	40	50	60	70	80	90	100

I can divide

2-digit by 2-digit numbers

I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models.

$$78 \div 5$$

$$10 \div 5$$

50

25

Remainder of 3  
 $78 = 15 \times 5 + 3$

## I CAN DIVIDE

3-DIGIT BY 1-DIGIT NUMBERS.

I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models.

$$135 \div 8$$

$$10 + 5 + 1$$

80

40

8

Remainder of 7

$$135 = 16 \times 8 + 7$$

## I CAN DIVIDE

4-DIGIT BY 1-DIGIT NUMBERS.

I can illustrate and explain the calculation by using equations, rectangular arrays and/or area models

$$1570 \div 2 = 785$$

1500

70

785

**I CAN  
SOLVE  
WORD  
PROBLEMS**

# I CAN SOLVE 2 STEP WORD PROBLEMS

LUKE HAD 17 MARBLES  
HIS BROTHER HAD  
2 TIMES AS MANY.  
HOW MANY DID THEY  
HAVE ALTOGETHER?

# I CAN SOLVE MULTI-STEP WORD PROBLEMS

MARIA HAD 3 RINGS.  
Her sister HAD 4 TIMES  
as many as she did. Her sister then  
gave her 2.  
How many does Maria have  
now?  
How many does her sister  
have now?  
How many do they have  
altogether?

# I CAN SOLVE BASIC MULTIPLICATION WORD PROBLEMS

THERE WERE 12 ROWS  
OF APPLE TREES  
THERE WERE 10  
IN EACH ROW.  
HOW MANY APPLE  
TREES WERE  
THERE?

# I CAN SOLVE BASIC DIVISION WORD PROBLEMS

JAMAL HAD 10 RINGS.  
He shared them with his brother.  
They now have the same  
amount.

WRITE AN EQUATION  
FOR THIS PROBLEM

$$10 \div 2 = 5$$

**I CAN SOLVE THE 3 TYPES  
OF MULTIPLICATIVE  
COMPARISON  
WORD PROBLEMS**

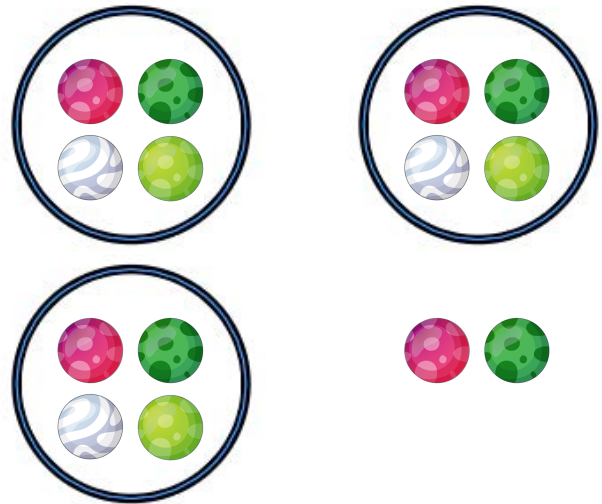
**SUE HAS 9  
BRACELETS  
SHE HAS 3 TIMES AS  
MANY AS HER SISTER  
HOW MANY DOES HER  
SISTER HAVE?**

$$9 \div 3 = 3$$

**I CAN INTERPRET THE  
REMAINDER.**

**HONG HAD 14 TOYS  
HE SHARED THEM BETWEEN  
HIS 2 FRIENDS AND HIMSELF.**

**How many did  
each person get?**



**I CAN GENERATE A NUMBER  
PATTERN THAT FOLLOWS A  
GIVEN RULE.**

**Make a pattern  
THAT SHOWS A NUMBER  
BEING MULTIPLIED BY 5.**

**5 10 15 20 25  
30 35 40 45  
50.....**

# I UNDERSTAND PLACE VALUE



**I understand that  
numbers to the left  
increase and  
numbers to the right  
decrease.**

 **10x the amount**  
 **1/10 the amount**

**55,555**

**50,000 + 5,000 + 500 + 50 + 5**

**I can use  
PLACE VALUE  
WHEN COMPARING  
WHOLE  
NUMBERS**  
**2345 > 457**

**I CAN TALK ABOUT  
NUMBERS IN EXPANDED  
FORM, STANDARD FORM  
AND WORD FORM.**

**2570 = 2000 + 500 + 70 + 0**

**TWO THOUSAND FIVE HUNDRED SEVENTY**

**I CAN COMPARE  
NUMBERS USING  
>, =, AND < SYMBOLS**

**2345 > 1236**

I can round  
**NUMBERS**  
TO ANY PLACE.

**2567**  
rounds to  
**3000**

I CAN ADD  
**MULTI-DIGIT**  
**NUMBERS**

**2578 + 8907**

I CAN  
**SUBTRACT**  
**MULTI-DIGIT**  
**NUMBERS.**

**2000 - 99**

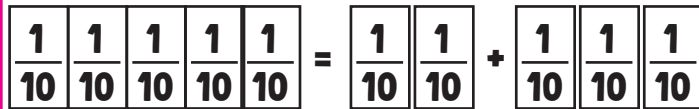
**I**

# **UNDERSTAND FRACTIONS**

**I CAN DECOMPOSE A FRACTION  
IN MORE THAN ONE WAY**

**I CAN JUSTIFY DECOMPOSITIONS  
BY USING A VISUAL FRACTION  
MODEL.**

$$\frac{5}{10} = \frac{2}{10} + \frac{3}{10}$$



**I CAN RECOGNIZE AND  
GENERATE EQUIVALENT  
FRACTIONS.**

$$\frac{2}{4} = \frac{4}{8}$$

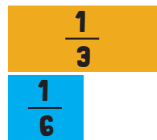


**I CAN COMPARE FRACTIONS WITH  
DIFFERENT NUMERATORS AND  
DIFFERENT DENOMINATORS.**

**I CAN RECORD THE RESULT OF  
COMPARISONS WITH SYMBOLS**

**>, =, OR <, AND JUSTIFY THE CONCLUSIONS  
e.g., by using a visual fraction model.**

$$\frac{1}{3} > \frac{1}{6}$$



**I CAN ADD MIXED NUMBERS  
WITH LIKE DENOMINATORS**

$$1\frac{1}{3} + \frac{2}{3}$$

**I CAN SUBTRACT NUMBERS  
WITH LIKE DENOMINATORS**

$$2\frac{4}{5} - \frac{1}{5}$$

**I CAN ADD FRACTIONS WITH  
LIKE DENOMINATORS**

$$\frac{1}{10} + \frac{3}{10}$$

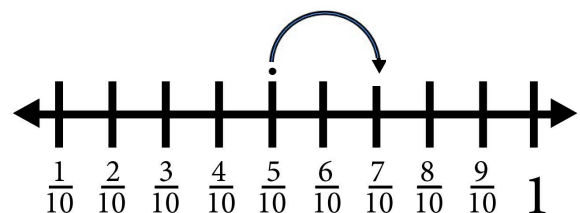
**I CAN SUBTRACT FRACTIONS  
WITH LIKE DENOMINATORS**

$$\frac{5}{10} - \frac{4}{10}$$

**I can solve addition fraction word problems  
by using visual fraction models and  
equations to represent the problem.**

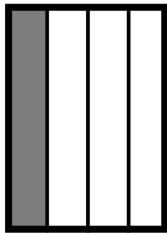
**RAUL RAN  $\frac{2}{10}$  OF A MILE IN THE MORNING AND  
 $\frac{5}{10}$  OF A MILE IN THE AFTERNOON.**

**HOW FAR DID HE RUN?**



**I CAN SOLVE SUBTRACTION WORD PROBLEMS BY USING VISUAL FRACTION MODELS AND EQUATIONS TO REPRESENT THE PROBLEM**

**GRANDMA MADE A CAKE. THE KIDS ATE  $\frac{1}{4}$  OF IT. HOW MUCH IS LEFT?**

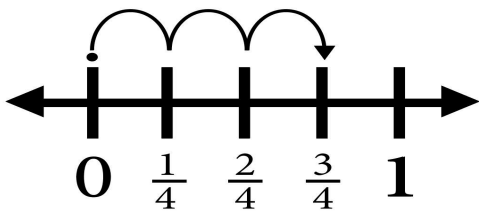


**I CAN MULTIPLY A FRACTION BY A WHOLE NUMBER.**

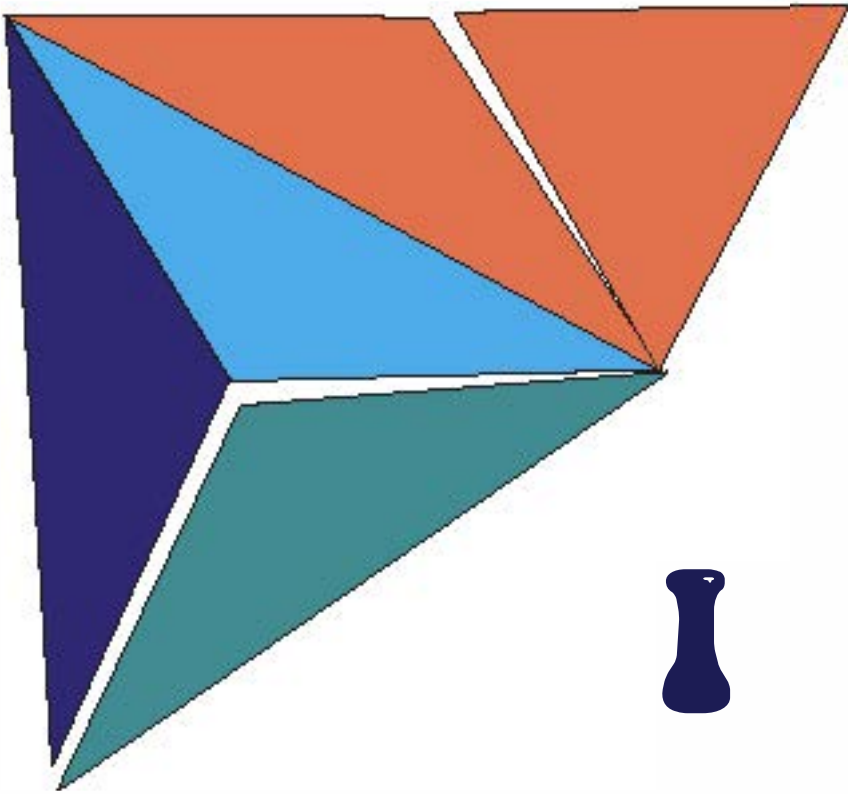
$$4 \times \frac{1}{4}$$

**I CAN SOLVE WORD PROBLEMS INVOLVING MULTIPLICATION OF A FRACTION BY A WHOLE NUMBER BY USING VISUAL FRACTION MODELS AND EQUATIONS TO REPRESENT THE PROBLEM**

**MARY RAN  $\frac{1}{4}$  OF A MILE FOR 3 DAYS. HOW FAR DID SHE RUN?**



$$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{3}{4}$$



I

# **UNDERSTAND DECIMALS**

**I can express a fraction with a denominator 10 as an equivalent fraction with a denominator of 100. I can add two fractions with denominators of 100**

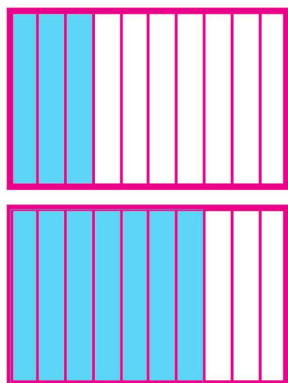
$$\frac{2}{10} = \frac{20}{100}$$

**I can use decimal notation for fractions with denominators 10 or 100.**

$$.10 = \frac{1}{10}$$

**I can compare 2 decimals to hundredths by reasoning about their size.**

$$.3 < .7$$



**I can record the results of comparisons with the symbols.**

$$.50 > .25$$

**I can talk about whole numbers through 1,000,000,000 and decimals to the hundredths using expanded notation and numerals.**

$$2570 = 2000 + 500 + 70 + 0$$

**TWO THOUSAND  
FIVE HUNDRED  
SEVENTY**

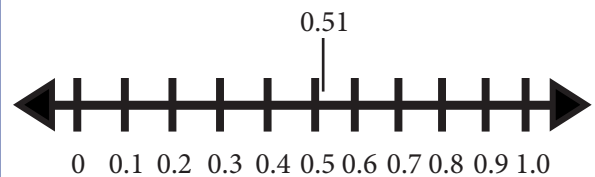
**I can model decimals using different visual models and money.**



**I can relate decimals to fractions that name tenths and hundredths.**

$$.50 = \frac{5}{10}$$

**I can find, place and identify decimals on a number line.**





**I can compare  
whole numbers  
to 1 billion  
using symbols.**

$$2,345,600 > 2,159,900$$

**I can order  
numbers  
to 1 billion.**

**2,345,678 comes before  
2,789,345**

**I can round  
numbers to  
the hundred  
thousands  
place**

$$245,909 \approx 200,000$$

**I can decompose a  
fraction into unit  
fractions.**

$$\frac{4}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$$

**I can decompose a  
fraction in more than 1  
way.**

$$\begin{aligned}\frac{4}{5} &= \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} \\ &= \frac{3}{5} + \frac{1}{5}\end{aligned}$$

**I can generate equivalent  
fractions using different  
methods.**

$$\frac{2}{3} = \frac{4}{6}$$

**I can compare  
2 fractions  
with different  
numerators  
and different  
denominators  
with symbols.**

$$\frac{2}{3} > \frac{1}{6}$$

**I can add  
fractions with  
equal  
denominators  
using  
different models  
and properties.**

$$\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$$

**I can subtract  
fractions with  
equal  
denomomators  
using  
different models  
and properties.**

$$\frac{4}{8} - \frac{3}{8} = \frac{1}{8}$$

**I can reason  
about sums of  
fractions using  
benchmark  
fractions.**

$$\frac{1}{2} + \frac{3}{2}$$

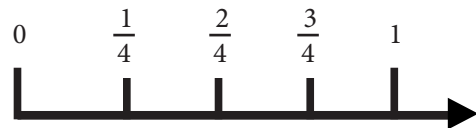
**This is more than 1**

**I can reason  
about  
differences of  
fractions using  
benchmark  
fractions.**

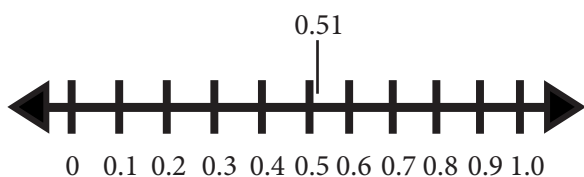
$$\frac{9}{8} - \frac{5}{8}$$

**This is less than 1**

**I can model  
fractions on a  
number line.**



**I can represent  
decimals on a  
number line.**



**I can add  
whole  
numbers.**

$$2456 + 1999 = 4,455$$

**I can subtract  
whole  
numbers.**

$$6000 - 2999 = 3001$$

**I can add  
decimals.**

$$.27 + .28 = .55$$

**I can  
subtract  
decimals.**

$$.49 - .25 = .24$$

**I can multiply a  
number by 10  
using different  
properties and  
place value.**

$$25 \times 10 = 250$$

**I can multiply a  
number by 100  
using different  
properties and  
place value.**

$$25 \times 100 = 2500$$

**I can multiply 2  
two-digit numbers  
using arrays, area  
models or equations.**

$$12 \times 12 = 144$$

**I can divide up to a 4 digit number by a 1 digit number using arrays, area models or equations.**

$$4004 \div 4 = 2002 \div 2 = 1001$$

**I can round numbers.**

$$5098 \approx 5000$$

**I can solve 2-step multiplication problems.**

Susie had 5 bags with 10 marbles. She gave away 2 bags. How many marbles does she have left?

**I can solve 2-step division problems with remainders.**

There were 36 marbles. The store put them in 4 bags. They sold 2 of the bags. How many marbles are left?

$$36 \div 4 = 9 \quad 2 \times 9 = 18$$

$$36 - 18 = 18$$

**I can solve multi-step problems with strip diagrams and equations.**

My brother has 5 marbles. I have 3 times as many. How many do we have altogether?

5
---

5	5	5
---	---	---



**GREAT MATH WORK!**



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**CAN MULTIPLY WITHIN 100**

**2 X 4**

**5 X 10**

**8 X 9**



**GREAT MATH WORK!**



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**CAN MULTIPLY 1-DIGIT BY 2-DIGIT  
NUMBERS**

**2 X 12**



**GREAT MATH WORK!**



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**CAN MULTIPLY 1-DIGIT BY 3-DIGIT  
NUMBERS**

**3**

**X**

**135**



**GREAT MATH WORK!**



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**CAN MULTIPLY 1-DIGIT BY 4-DIGIT  
NUMBERS**

**5 X 2678**



**GREAT MATH WORK!**



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**CAN MULTIPLY 2-DIGIT BY  
2-DIGIT NUMBERS**

**12 X 12**



**GREAT MATH WORK!**



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**CAN FIND ALL FACTOR PAIRS OF A  
WHOLE NUMBER IN THE RANGE OF 1-100**





**GREAT MATH WORK!**



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**KNÖWS MULTIPLES**

**2 4 6 8**



**GREAT MATH WORK!**



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**KNÖWS IF A NUMBER IS PRIME  
ÖR CÖMPÖSITE**

**5 is Prime**

**12 is Composite**



**GREAT MATH WORK!**



---

**CAN DIVIDE WITHIN 100**



**GREAT MATH WORK!**



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**CAN DIVIDE 2-DIGIT BY 2-DIGIT NUMBERS**

$$78 \div 5$$

$$10 \div 5$$

<b>50</b>	<b>25</b>
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**Remainder of 3**

$$78 = 15 \times 5 + 3$$



**GREAT MATH WORK!**



**CAN DIVIDE 3-DIGIT BY 1-DIGIT NUMBERS**

$$10 + 5 + 1 \quad 135 \div 8$$

80	40	8
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 Remainder of 7

$$135 = 16 \times 8 + 7$$



**GREAT MATH WORK!**



**CAN SOLVE WORD PROBLEMS**



# GREAT MATH WORK!



## CAN SOLVE 2 STEP PROBLEMS

- ☐ Luke has 17 marbles his brother had 2 times as many. How many did they have altogether?

<input type="radio"/>
<input type="radio"/>
<input type="radio"/>
<input type="radio"/>
<input type="radio"/>
<input type="radio"/>



# GREAT MATH WORK!



## CAN SOLVE MULTI-STEP PROBLEMS

- ☐ Maria had 3 rings. Her sister had 4 times as many as she did. Her sister then gave her 2.
- ☐ How many does Maria have now?
- ☐ How many does her sister have now?
- ☐ How many do they have altogether?



# GREAT MATH WORK!



## CAN SOLVE BASIC MULTIPLICATION WORD PROBLEMS

- ☐ There were 12 rows of apple trees. There were
- ☐ 10 in each row. How many apples trees were
- ☐ there?



# GREAT MATH WORK!



## CAN SOLVE BASIC DIVISION WORD PROBLEMS

- ☐ Jamaal had 10 rings. He shared them with
- ☐ his brother. They have now the same
- ☐ amount. Write an equation for this
- ☐ problem.



**GREAT MATH WORK!**



**CAN SOLVE 3 TYPES OF  
MULTIPLICATIVE COMPARISON WORD  
PROBLEMS**

<input type="radio"/>	Sue has 9 bracelets. She has 3 times as many as
<input type="radio"/>	her sister. How many does her sister have?
<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	



**GREAT MATH WORK!**



**CAN INTERPRET THE REMAINDER**

<input type="radio"/>	Hong had 4 toys. He shared them with
<input type="radio"/>	his 2 friends. How many did each person
<input type="radio"/>	get?
<input type="radio"/>	
<input type="radio"/>	



**GREAT MATH WORK!**



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**CAN GENERATE A NUMBER  
PATTERN THAT FOLLOWS A GIVEN  
RULE**



**GREAT MATH WORK!**



---

**UNDERSTANDS PLACE VALUE**



## GREAT MATH WORK!



Understands that numbers to the left increase and numbers to the right decrease.

← 10x the amount

→ 1/10 the amount

**55,555**

50,000 + 5,000 + 500 + 50 + 5



## GREAT MATH WORK!



CAN USE PLACE VALUE WHEN  
COMPARING WHOLE NUMBERS

**2345 > 457**





# GREAT MATH WORK!



CAN TALK ABOUT NUMBERS IN EXPANDED  
FÖRM, STANDARD FÖRM AND WÖRD FÖRM

$$2570 = 2000 + 500 + 70 + 0$$

TWÖ THÖUSAND FIVE HUNDRED SEVENTY



# GREAT MATH WORK!



CAN CÖMPARE NUMBERS USING  $>$ ,  
 $=$ , AND  $<$  SYMBÖLS

$$2345 > 1236$$



**GREAT MATH WORK!**



**CAN ROUND NUMBERS TO THE  
HUNDRED THOUSAND PLACE**

**2567 rounds to 3000**



**GREAT MATH WORK!**



**CAN ADD MULTI-DIGIT NUMBERS**

**2578 + 8907**



**GREAT MATH WORK!**



**CAN SUBTRACT MULTI-DIGIT  
NUMBERS**

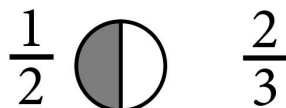
**2000 - 99**



**GREAT MATH WORK!**



**CAN UNDERSTAND FRACTIONS**





# GREAT MATH WORK!



**CAN DECOMPÖSE A FRACTION IN MÖRE THAN ONE WAY**

$$\frac{5}{10} = \frac{2}{10} + \frac{3}{10}$$

$$\frac{1}{10} \frac{1}{10} \frac{1}{10} \frac{1}{10} \frac{1}{10} = \frac{1}{10} \frac{1}{10} + \frac{1}{10} \frac{1}{10} \frac{1}{10}$$



# GREAT MATH WORK!



**CAN RECÖGNIZE AND GENERATE EQUIVALENT FRACTIONS**

$$\frac{2}{4} = \frac{4}{8}$$



**GREAT MATH WORK!**



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**CAN COMPARE FRACTIONS WITH DIFFERENT  
NUMERATORS AND DIFFERENT DENOMINATORS**

$$\frac{1}{3} > \frac{1}{6}$$



**GREAT MATH WORK!**



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**CAN RECORD THE RESULT OF  
COMPARISONS WITH SYMBOLS**

$$\frac{2}{3} > \frac{1}{6}$$



**GREAT MATH WORK!**



**CAN ADD MIXED NUMBERS WITH  
LIKE DENÖMINATÖRS**

$$1 \frac{1}{3} + \frac{2}{3}$$



**GREAT MATH WORK!**



**CAN SUBTRACT MIXED NUMBERS  
WITH LIKE DENÖMINATÖRS**

$$2 \frac{4}{5} - \frac{1}{5}$$



**GREAT MATH WORK!**



**CAN ADD FRACTIONS WITH LIKE  
DENOMINATORS**

$$\frac{1}{10} + \frac{3}{10}$$



**GREAT MATH WORK!**



**CAN SUBTRACT FRACTIONS WITH  
LIKE DENOMINATORS**

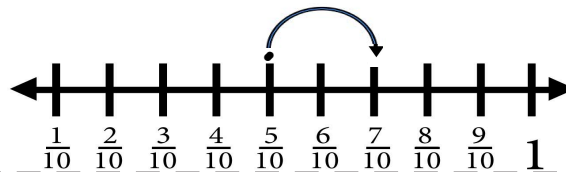
$$\frac{5}{10} - \frac{4}{10}$$



# GREAT MATH WORK!



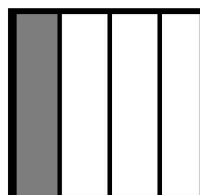
CAN SOLVE ADDITION FRACTION WORD PROBLEMS  
BY USING VISUAL FRACTION MODELS AND  
EQUATIONS TO REPRESENT THE PROBLEM



# GREAT MATH WORK!



CAN SOLVE SUBTRACTION FRACTION WORD  
PROBLEMS BY USING VISUAL FRACTION MODELS  
AND EQUATIONS TO REPRESENT THE PROBLEM







# GREAT MATH WORK!



CAN MULTIPLY A FRACTION BY A WHOLE NUMBER

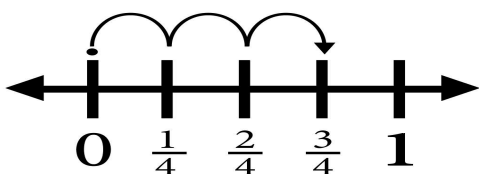
$$4 \times \frac{1}{4}$$



# GREAT MATH WORK!



CAN SOLVE WORD PROBLEMS INVOLVING MULTIPLICATION OF A FRACTION BY A WHOLE NUMBER USING MODELS AND EQUATIONS TO REPRESENT THE PROBLEM



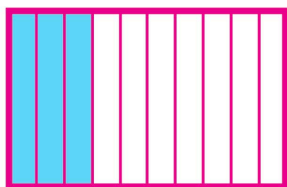
$$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{3}{4}$$



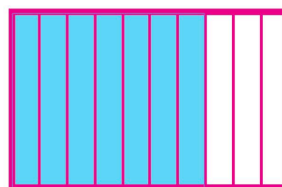
**GREAT MATH WORK!**



**CAN UNDERSTAND DECIMALS**



$$.3 < .7$$



**GREAT MATH WORK!**



**can express a fraction with a denominator 10 as an equivalent fraction with denominator 100.**

$$\frac{2}{10} = \frac{20}{100}$$



# GREAT MATH WORK!



CAN USE DECIMAL NOTATION FOR FRACTIONS  
WITH DENOMINATORS 10 OR 100

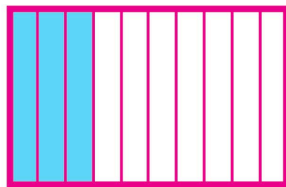
$$.10 = \frac{1}{10}$$



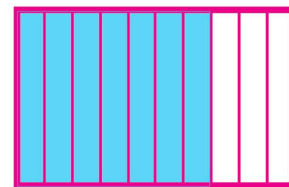
# GREAT MATH WORK!



CAN COMPARE 2 DECIMALS TO HUNDREDTHS BY  
REASONING ABOUT THEIR SIZE



$$.3 < .7$$

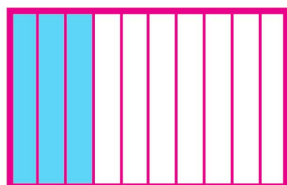




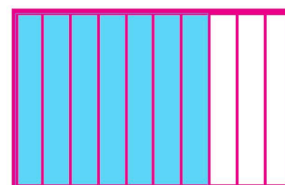
# GREAT MATH WORK!



CAN RECOGNIZE THE COMPARISONS ARE VALID ONLY WHEN THE TWO DECIMALS REFER TO THE SAME WHOLE



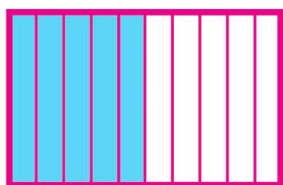
$$.3 < .7$$



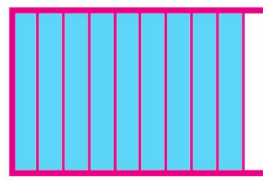
# GREAT MATH WORK!

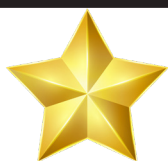


CAN RECORD THE RESULTS OF COMPARISONS WITH THE SYMBOLS  $>$ ,  $=$ , OR  $<$ , AND JUSTIFYING THE CONCLUSIONS. E.G., BY USING A VISUAL MODEL



$$.5 < .9$$





**GREAT MATH WORK!**



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can express a fraction with a denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100

$$\frac{2}{10} = \frac{20}{100}$$



**GREAT MATH WORK!**



---

can use decimal notation for fractions with denominators 10 or 100.

$$.10 = \frac{1}{10}$$



**GREAT MATH WORK!**



can compare 2 decimals to  
hundredths by reasoning about their size.



**GREAT MATH WORK!**



can record the  
results of comparisons with the  
symbols

**.50 > .25**



**GREAT MATH WORK!**



---

can talk about whole numbers  
through 1,000,000,000 and decimals to the  
hundredths using expanded notation and numerals.

$$2570 = 2000 + 500 + 70 + 0$$

TWO THOUSAND  
FIVE HUNDRED  
SEVENTY



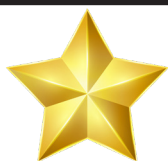
**GREAT MATH WORK!**



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can model decimals using  
different visual models and money.





**GREAT MATH WORK!**



can relate  
decimals to fractions that name tenths  
and hundredths.

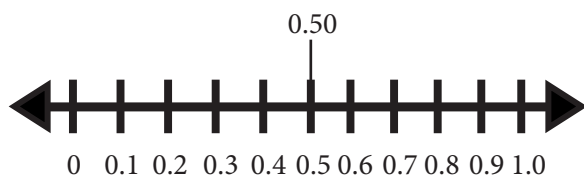
$$.50 = \frac{5}{10}$$



**GREAT MATH WORK!**



can find, place and identify  
decimals on a number line.







**GREAT MATH WORK!**



---

can compare whole numbers to 1  
billion using symbols.

$$2,345,600 > 2,159,900$$



**GREAT MATH WORK!**



---

can order numbers to  
1 billion.

2,456, 2589, 3,500



**GREAT MATH WORK!**



---

can round numbers to the  
hundred thousands.

$$245,909 \approx 200,000$$



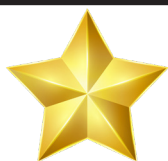
**GREAT MATH WORK!**



---

can decompose a fraction  
into unit fractions.

$$\frac{4}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$$



**GREAT MATH WORK!**



---

can decompose a fraction in  
more than 1 way.

$$\frac{4}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$$
$$= \frac{3}{5} + \frac{1}{5}$$



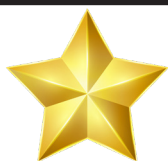
**GREAT MATH WORK!**



---

can generate equivalent fractions  
using different methods.

$$\frac{2}{3} = \frac{4}{6}$$



**GREAT MATH WORK!**



---

can compare 2 fractions with  
different numerators and different  
denominators with symbols.

$$\frac{2}{3} > \frac{1}{6}$$



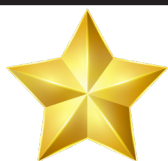
**GREAT MATH WORK!**



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can add fractions with equal  
denominators using different  
models and properties.

$$\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$$



**GREAT MATH WORK!**



---

can subtract fractions with  
equal denominators using  
different models and properties.

$$\frac{4}{8} - \frac{3}{8} = \frac{1}{8}$$



**GREAT MATH WORK!**

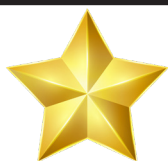


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can reason about sums of fractions  
using benchmark fractions.

$$\frac{1}{2} + \frac{3}{2}$$

**This is more than 1**



**GREAT MATH WORK!**



Can reason about differences of fractions using benchmark fractions.

$$\frac{9}{8} - \frac{5}{8}$$

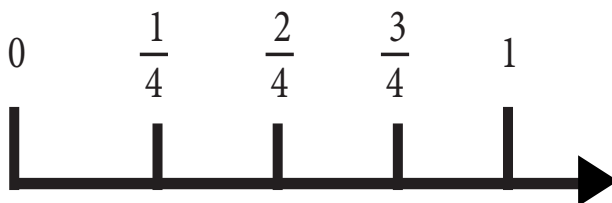
This is less than 1



**GREAT MATH WORK!**



Can model fractions on a number line.

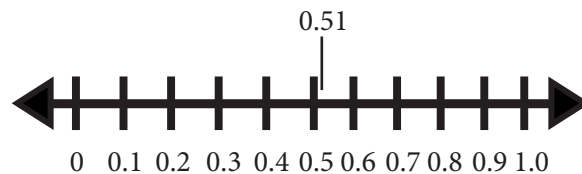




**GREAT MATH WORK!**



**can represent decimals on a number line.**



**GREAT MATH WORK!**



**can add whole numbers.**

$$\begin{array}{r} 2456 + 1999 \\ = 4,455 \end{array}$$



**GREAT MATH WORK!**



---

**can subtract whole numbers.**

$$6000 - 2999 = 3001$$



**GREAT MATH WORK!**

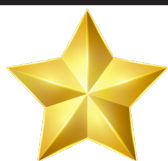


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**can add decimals.**

$$.27 + .28 = .55$$





**GREAT MATH WORK!**



---

**can subtract  
decimals.**

$$.49 - .25 = .24$$



**GREAT MATH WORK!**



---

**can multiply a number by 10 using  
different properties and place value.**

$$25 \times 10 = 250$$



**GREAT MATH WORK!**



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Can multiply a number by 100 using  
different properties and place value.

$$25 \times 100 = 2500$$



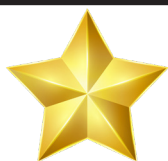
**GREAT MATH WORK!**



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Can multiply 2 two-digit numbers using arrays,  
area models or equations.

$$12 \times 12 = 144$$



**GREAT MATH WORK!**



---

Can divide up to a 4-digit  
number by a 1-digit number using  
arrays, area models or equations.

$$4004 \div 4 = 2002 \div 2 = 1001$$



**GREAT MATH WORK!**



---

Can round numbers.

$$5098 \approx 5000$$



**GREAT MATH WORK!**



**can solve 2-step  
multiplication problems.**

Susie had 5 bags with 10 marbles. She  
gave away 2 bags. How many marbles  
does she have left?



**GREAT MATH WORK!**



**can solve 2-step division  
problems with remainders.**

$$25 \div 2$$



**GREAT MATH WORK!**



---

**can solve multi-step problems with strip diagrams and equations.**

**My brother has 5 marbles. I have 3 times as many. How many do I have?**

5		
5	5	5

**I CAN**  
**MULTIPLY**  
**AND**  
**DIVIDE**

**I CAN MULTIPLY**  
**WITHIN**  
**100**

$$2 \times 4$$

$$5 \times 10$$

$$8 \times 9$$

# **I CAN MULTIPLY 1-DIGIT BY 2-DIGIT NUMBERS**

**I CAN ILLUSTRATE AND EXPLAIN THE  
CALCULATION BY USING EQUATIONS,  
RECTANGULAR ARRAYS AND/OR AREA MODELS.**

$$2 \times 12$$

# **I CAN MULTIPLY 1-DIGIT BY 3-DIGIT NUMBERS**

**I CAN ILLUSTRATE AND EXPLAIN THE CALCULATION BY  
USING EQUATIONS, RECTANGULAR ARRAYS AND/OR  
AREA MODELS.**

$$3 \times 135$$

# **I CAN MULTIPLY 1-DIGIT BY 4-DIGIT NUMBERS**

**(RECTANGULAR ARRAYS AND/OR AREA MODELS.)**

**I CAN ILLUSTRATE AND EXPLAIN THE  
CALCULATION BY USING EQUATIONS,  
RECTANGULAR ARRAYS AND/OR AREA  
MODELS.**

$$5 \times 2678$$

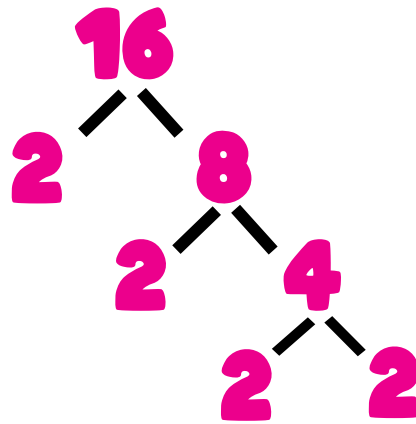
# **I CAN MULTIPLY 2-DIGIT BY 2-DIGIT NUMBERS**

**I CAN ILLUSTRATE AND EXPLAIN THE  
CALCULATION BY USING EQUATIONS,  
RECTANGULAR ARRAYS AND/OR AREA  
MODELS.**

$$12 \times 12$$



**I CAN FIND ALL FACTOR  
PAIRS OF A WHOLE NUMBER IN  
THE RANGE OF 1-100**



**I KNOW  
MULTIPLES**

**2**

**4**

**6**

**8**

**I KNOW IF  
A NUMBER IS PRIME  
OR COMPOSITE**

**5 IS PRIME**

**12 IS COMPOSITE**

**I CAN DIVIDE  
WITHIN 100**

	0	1	2	3	4	5	6	7	8	9	10
= 0	0	0	0	0	0	0	0	0	0	0	0
= 1	0	1	2	3	4	5	6	7	8	9	10
= 2	0	2	4	6	8	10	12	14	16	18	20
= 3	0	3	6	9	12	15	18	21	24	27	30
= 4	0	4	8	12	16	20	24	28	32	36	40
= 5	0	5	10	15	20	25	30	35	40	45	50
= 6	0	6	12	18	24	30	36	42	48	54	60
= 7	0	7	14	21	28	35	42	49	56	63	70
= 8	0	8	16	24	32	40	48	56	64	72	80
= 9	0	9	18	27	36	45	54	63	72	81	90
= 10	0	10	20	30	40	50	60	70	80	90	100

# **I CAN DIVIDE 2-DIGIT BY 1-DIGIT NUMBERS**

**I CAN ILLUSTRATE AND EXPLAIN THE CALCULATION BY USING EQUATIONS, RECTANGULAR ARRAYS AND/OR AREA MODELS.**

$$78 \div 5$$

$$10 \div 5$$

<b>50</b>	<b>25</b>
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**REMAINDER OF 3**

$$78 = 15 \times 5 + 3$$

# **I CAN DIVIDE**

**3-DIGIT BY 1-DIGIT NUMBERS.**

**I CAN ILLUSTRATE AND EXPLAIN THE CALCULATION BY USING EQUATIONS, RECTANGULAR ARRAYS AND/OR AREA MODELS.**

$$135 \div 8$$

$$10 + 5 + 1$$

<b>80</b>	<b>40</b>	<b>8</b>
-----------	-----------	----------

**Remainder of 7**

$$135 = 16 \times 8 + 7$$

# **I CAN DIVIDE**

## **4-DIGIT BY 1-DIGIT NUMBERS**

**I CAN ILLUSTRATE AND EXPLAIN THE CALCULATION  
BY USING EQUATIONS, RECTANGULAR ARRAYS  
AND/OR AREA MODEL.**

$$1570 \div 2$$

$$750 + 35$$

<b>1500</b>	<b>70</b>
-------------	-----------

$$785$$

# **I CAN SOLVE DIVISION PROBLEMS WITH REMAINDERS**

$$43 \div 7$$

$$6 \times 7 + 1$$

# **I CAN SOLVE WORD PROBLEMS**

**I CAN SOLVE  
2-STEP WORD PROBLEMS  
LUKE HAD 17 MARBLES.  
HIS BROTHER HAD 2 TIMES AS  
MANY.  
HOW MANY DID THEY  
HAVE ALTOGETHER?**

## **I CAN SOLVE MULTI-STEP WORD PROBLEMS**

Maria had 3 rings. Her sister HAD 4 TIMES  
as many as she did. Her sister then gave her  
2.

**HOW MANY DOES MARIA HAVE NOW?**

**HOW MANY DOES HER SISTER HAVE  
NOW?**

**HOW MANY DO THEY HAVE ALTOGETHER?**

## **I CAN SOLVE BASIC MULTIPLICATION WORD PROBLEMS**

**THERE WERE 12 ROWS OF APPLE TREES.  
THERE WERE 10 IN EACH ROW.**

**HOW MANY APPLE TREES WERE THERE?**

---

**I CAN SOLVE  
BASIC DIVISION WORD PROBLEMS**

**JAMAL HAD 10 RINGS. HE SHARED  
THEM WITH HIS BROTHER. THEY NOW  
HAVE THE SAME AMOUNT.**

**WRITE THE EQUATION IN THE BOX.**

$$10 \div 2 = 5$$

**I CAN SOLVE THE 3 TYPES OF MULTIPLICATIVE  
COMPARISON WORD PROBLEMS**

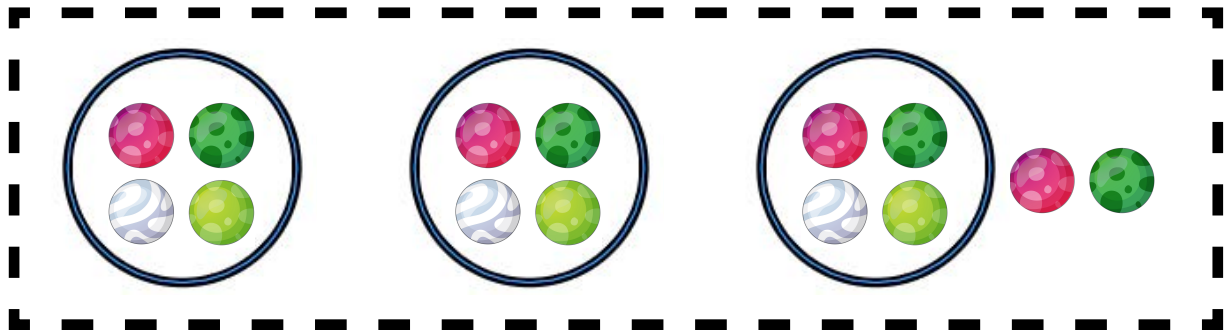
**SUE HAS 9 BRACELETS.  
SHE HAS 3 TIMES AS MANY AS  
HER SISTER.**

**HOW MANY DOES HER SISTER  
HAVE?**

$$9 \div 3 = 3$$

**I CAN INTERPRET THE REMAINDER**  
**HONG HAD 14 TOYS. HE SHARED**  
**THEM BETWEEN HIS 2 FRIENDS AND**  
**HIMSELF.**

**HOW MANY DID EACH PERSON GET?**



**I CAN GENERATE A NUMBER**  
**PATTERN THAT FOLLOWS A**  
**GIVEN RULE.**

**5 10 15 20 25 30**  
**35 40 45 50.....**





# UNDERSTAND PLACE VALUE

**UNDERSTANDS THAT NUMBERS  
TO THE LEFT INCREASE AND  
NUMBERS TO THE RIGHT  
DECREASE.**

← 10x the amount  
→ 1/10 the amount

**55.555**

**50,000 + 5,000 + 500 + 50 + 5**

**I CAN TALK ABOUT NUMBERS  
IN EXPANDED FORM,  
STANDARD FORM AND WORD  
FORM**

$$2570 = 2000 + 500 + 70 + 0$$

**TWO THOUSAND FIVE HUNDRED SEVENTY**

**I CAN USE  
PLACE VALUE WHEN  
COMPARING  
WHOLE NUMBERS**

$$2345 > 457$$

**I CAN COMPARE NUMBERS  
USING  
>, =, AND < SYMBOLS**

$$2345 > 1236$$

**I CAN ROUND  
NUMBERS TO THE HUNDRED  
THOUSAND PLACE**

**256,789 ROUNDS TO  
300,000**

**I CAN  
ADD MULTI-DIGIT  
NUMBERS**

$$2578 + 8907$$

**I CAN SUBTRACT  
MULTI-DIGIT  
NUMBERS**

$$2000 - 99$$

I

# UNDERSTAND FRACTIONS

**I CAN DECOMPOSE FRACTIONS  
IN MORE THAN ONE WAY**

**I CAN JUSTIFY DECOMPOSITIONS BY USING A VISUAL  
FRACTION MODEL.**

$$\frac{5}{10} = \frac{2}{10} + \frac{3}{10}$$

$$\frac{1}{10} \frac{1}{10} \frac{1}{10} \frac{1}{10} \frac{1}{10} = \frac{1}{10} \frac{1}{10} + \frac{1}{10} \frac{1}{10} \frac{1}{10}$$

**I CAN RECOGNIZE AND  
GENERATE EQUIVALENT  
FRACTIONS**

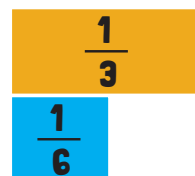
$$\frac{2}{4} = \frac{4}{8}$$

**I CAN COMPARE FRACTIONS WITH DIFFERENT  
NUMERATORS AND DIFFERENT DENOMINATORS  
I CAN RECORD THE RESULT OF  
COMPARISONS WITH SYMBOLS**

**>, =, OR <**

**AND JUSTIFY THE CONCLUSIONS,  
E.G. BY USING A VISUAL FRACTION MODEL.**

$$\frac{1}{3} > \frac{1}{6}$$



**I CAN ADD MIXED NUMBERS WITH  
LIKE DENOMINATORS**

$$1\frac{1}{3} + \frac{2}{3}$$

**I CAN SUBTRACT MIXED NUMBERS  
WITH LIKE DENOMINATORS**

$$2\frac{4}{5} - \frac{1}{5}$$

**I CAN ADD FRACTIONS WITH LIKE  
DENOMINATORS**

$$\frac{1}{10} + \frac{3}{10}$$

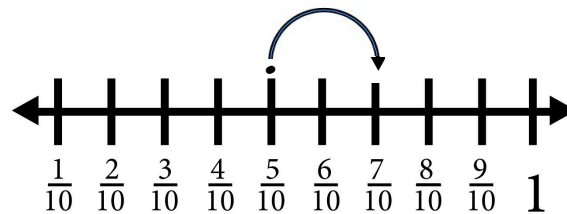
**I CAN SUBTRACT FRACTIONS  
WITH LIKE DENOMINATORS**

$$\frac{5}{10} - \frac{4}{10}$$

**I CAN SOLVE ADDITION FRACTION WORD PROBLEMS BY USING VISUAL FRACTION MODELS AND EQUATIONS TO REPRESENT THE PROBLEM**

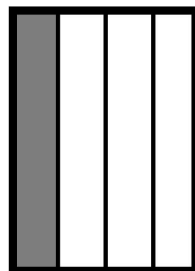
**RAUL RAN  $\frac{2}{10}$  OF A MILE IN THE MORNING AND  $\frac{5}{10}$  OF A MILE IN THE AFTERNOON.**

**HOW FAR DID HE RUN?**



**I CAN SOLVE SUBTRACTION FRACTION WORD PROBLEMS BY USING VISUAL FRACTION MODELS AND EQUATIONS TO REPRESENT THE PROBLEM**

**GRANDMA MADE A CAKE.  
THE KIDS ATE  $\frac{1}{4}$  OF IT.  
HOW MUCH IS LEFT?**



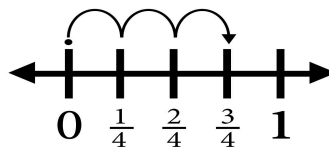


# **I CAN MULTIPLY A FRACTION BY A WHOLE NUMBER**

$$2 \times \frac{1}{4}$$

**I CAN SOLVE WORD PROBLEMS INVOLVING MULTIPLICATION OF A FRACTION BY A WHOLE NUMBER BY USING VISUAL FRACTION MODELS AND EQUATIONS REPRESENTING THE PROBLEM**

**MARY RAN  $\frac{1}{4}$  OF A MILE FOR 3 DAYS. HOW FAR DID SHE RUN?**



$$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{3}{4}$$

# **I UNDERSTAND DECIMALS**

**I CAN EXPRESS A FRACTION  
WITH A DENOMINATOR 10 AS AN  
EQUIVALENT FRACTION WITH A  
DENOMINATOR OF 100.  
I CAN ADD TWO FRACTIONS  
WITH DENOMINATORS OF 100**

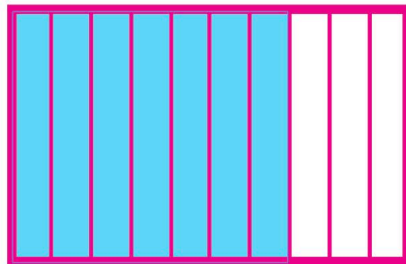
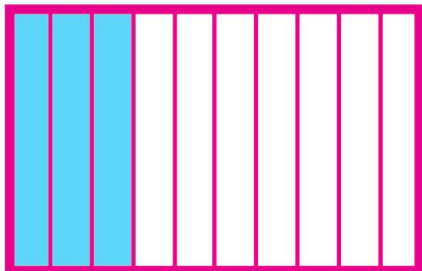
$$\frac{2}{10} = \frac{20}{100}$$

**I CAN USE  
DECIMAL NOTATION  
FOR FRACTIONS WITH  
DENOMINATORS 10 AND 100**

$$.10 = \frac{1}{10}$$

**I CAN COMPARE 2 DECIMALS TO HUNDREDTHS BY  
REASONING ABOUT THEIR SIZE.**

$$.3 > .7$$



**I CAN**

**MULTIPLY**

**AND**

**DIVIDE**

# I CAN MULTIPLY

## WITHIN 100

X	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

2 x 4

5 x 10

8 x 9

# **I CAN MULTIPLY 1-DIGIT BY 2-DIGIT NUMBERS**

**I CAN ILLUSTRATE AND EXPLAIN THE  
CALCULATION BY USING EQUATIONS,  
RECTANGULAR ARRAYS AND/OR AREA MODELS.**

$$2 \times 12$$

# **I CAN MULTIPLY 1-DIGIT BY 3-DIGIT NUMBERS**

**I CAN ILLUSTRATE AND EXPLAIN THE CALCULATION BY  
USING EQUATIONS, RECTANGULAR ARRAYS AND/OR  
AREA MODELS.**

$$3 \times 135$$

# **I CAN MULTIPLY 1-DIGIT BY 4-DIGIT NUMBERS**

**(RECTANGULAR ARRAYS AND/OR AREA MODELS.)**

**I CAN ILLUSTRATE AND EXPLAIN THE  
CALCULATION BY USING EQUATIONS,  
RECTANGULAR ARRAYS AND/OR AREA  
MODELS.**

$$5 \times 2678$$

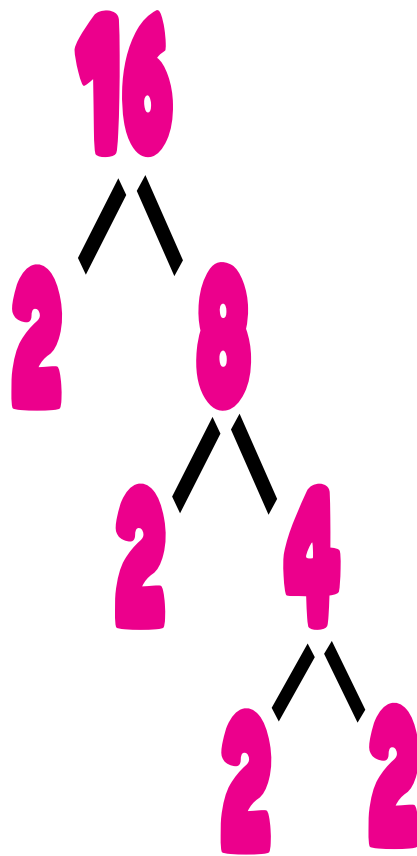


# I CAN MULTIPLY 2-DIGIT BY 2-DIGIT NUMBERS

I CAN ILLUSTRATE AND EXPLAIN THE  
CALCULATION BY USING EQUATIONS,  
RECTANGULAR ARRAYS AND/OR AREA  
MODELS.

$$12 \times 12$$

**I CAN FIND ALL FACTOR  
PAIRS OF A WHOLE NUMBER IN  
THE RANGE OF 1-100**



# I KNOW MULTIPLES

2 4 6 8

**I KNOW IF  
A NUMBER IS PRIME  
OR COMPOSITE**

**5 IS PRIME**

**12 IS COMPOSITE**

# I CAN DIVIDE

## WITHIN 100

	0	1	2	3	4	5	6	7	8	9	10
=0	0	0	0	0	0	0	0	0	0	0	0
=1	0	1	2	3	4	5	6	7	8	9	10
=2	0	2	4	6	8	10	12	14	16	18	20
=3	0	3	6	9	12	15	18	21	24	27	30
=4	0	4	8	12	16	20	24	28	32	36	40
=5	0	5	10	15	20	25	30	35	40	45	50
=6	0	6	12	18	24	30	36	42	48	54	60
=7	0	7	14	21	28	35	42	49	56	63	70
=8	0	8	16	24	32	40	48	56	64	72	80
=9	0	9	18	27	36	45	54	63	72	81	90
=10	0	10	20	30	40	50	60	70	80	90	100

# I CAN DIVIDE 2-DIGIT BY 1-DIGIT NUMBERS

I CAN ILLUSTRATE AND EXPLAIN THE CALCULATION  
BY USING EQUATIONS, RECTANGULAR ARRAYS  
AND/OR AREA MODELS.

$$78 \div 5$$

$$10 \div 5$$

50	25
----	----

REMAINDER OF 3

$$78 = 15 \times 5 + 3$$

# I CAN DIVIDE

3-DIGIT BY 1-DIGIT NUMBERS

I CAN ILLUSTRATE AND EXPLAIN THE  
CALCULATION BY USING EQUATIONS,  
RECTANGULAR  
ARRAYS AND/OR AREA MODELS.

$$135 \div 8$$

$$10 + 5 + 1$$

80	40	8
----	----	---

Remainder of 7

$$135 = 16 \times 8 + 7$$

# **I CAN DIVIDE**

## **4-DIGIT BY 1-DIGIT NUMBERS**

**I CAN ILLUSTRATE AND EXPLAIN THE CALCULATION  
BY USING EQUATIONS, RECTANGULAR ARRAYS  
AND/OR AREA MODELS**

$$1570 \div 2$$

$$750 + 35$$

1500	70
------	----

**785**



# I CAN SOLVE DIVISION PROBLEMS WITH REMAINDERS

$$43 \div 7$$

$$6 \times 7 + 1$$

**I CAN SOLVE  
WORD  
PROBLEMS**

**I CAN SOLVE  
2-STEP WORD PROBLEMS**

**LUKE HAD 17 MARBLES HIS  
BROTHER HAD 2 TIMES AS MANY.**

**HOW MANY DID THEY  
HAVE ALTOGETHER?**

# **I CAN SOLVE MULTI-STEP WORD PROBLEMS**

Maria had 3 rings. Her sister HAD 4 TIMES  
as many as she did. Her sister then gave her  
2.

**HOW MANY DOES MARIA HAVE NOW?**

**HOW MANY DOES HER SISTER HAVE  
NOW?**

**HOW MANY DO THEY HAVE ALTOGETHER?**

**I CAN SOLVE**  
**BASIC MULTIPLICATION**  
**WORD PROBLEMS**

**THERE WERE 12 ROWS OF APPLE TREES.**  
**THERE WERE 10 IN EACH ROW.**

**HOW MANY APPLE TREES WERE THERE?**

---

# **I CAN SOLVE**

## **BASIC DIVISION WORD PROBLEMS**

**JAMAL HAD 10 RINGS. HE SHARED  
THEM WITH HIS BROTHER. THEY NOW  
HAVE THE SAME AMOUNT.**

**WRITE THE EQUATION FOR THIS PROBLEM**

$$10 \div 2 = 5$$

**I CAN SOLVE THE 3 TYPES OF MULTIPLICATIVE  
COMPARISON WORD PROBLEMS**

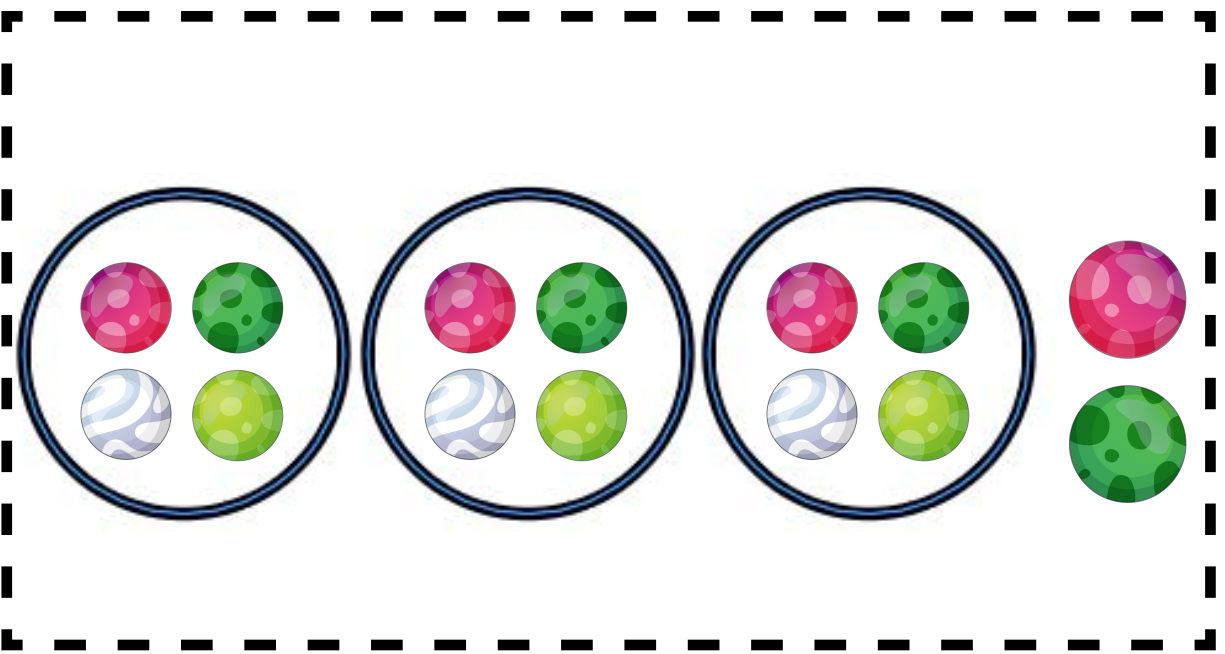
**SUE HAS 9 BRACELETS.  
SHE HAS 3 TIMES AS MANY AS  
HER SISTER.**

**HOW MANY DOES HER SISTER  
HAVE?**

$$9 \div 3 = 3$$

**I CAN INTERPRET THE REMAINDER**  
**HONG HAD 14 TOYS. HE SHARED**  
**THEM BETWEEN HIS 2 FRIENDS**  
**AND HIMSELF.**

**HOW MANY DID EACH PERSON GET?**






**I CAN GENERATE A NUMBER  
PATTERN THAT FOLLOWS A  
GIVEN RULE**

**5 10 15 20 25 30  
35 40 45 50 ...**

**I CAN**  
**UNDERSTAND**  
**PLACE VALUE**



**I understand that  
numbers to the left  
increase and  
numbers to the  
right decrease.**

 **10x the amount**  
 **1/10 the amount**

**55,555**

**50,000 + 5,000 + 500 + 50 + 5**



**I CAN TALK ABOUT NUMBERS  
IN EXPANDED FORM,  
STANDARD FORM AND WORD  
FORM**

$$2570 = 2000 + 500 + 70 + 0$$

**TWO THOUSAND FIVE HUNDRED SEVENTY**

**I CAN USE  
PLACE VALUE WHEN  
COMPARING  
WHOLE NUMBERS**

**2345 > 457**

# I CAN COMPARE NUMBERS USING

**>, =, AND < SYMBOLS**

$$2345 > 1236$$

**I CAN ROUND  
NUMBERS TO THE HUNDRED  
THOUSAND PLACE**

**256,789  
rounds to  
300,000**

**I CAN  
ADD MULTI-DIGIT  
NUMBERS**

$$2578 + 8907$$



# I CAN SUBTRACT MULTI-DIGIT NUMBERS

2000 - 99

**I CAN  
UNDERSTAND  
FRACTIONS**

# I CAN DECOMPOSE A FRACTION IN MORE THAN ONE WAY

I CAN JUSTIFY DECOMPOSITIONS BY USING A VISUAL  
FRACTION MODEL.

$$\frac{5}{10} = \frac{2}{10} + \frac{3}{10}$$

$$\frac{1}{10} \frac{1}{10} \frac{1}{10} \frac{1}{10} \frac{1}{10} = \frac{1}{10} \frac{1}{10} + \frac{1}{10} \frac{1}{10} \frac{1}{10}$$

**I CAN RECOGNIZE AND  
GENERATE EQUIVALENT  
FRACTIONS**

$$\frac{2}{4} = \frac{4}{8}$$

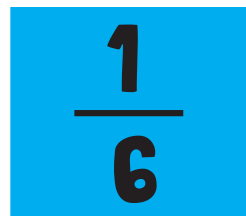
**I CAN COMPARE FRACTIONS WITH DIFFERENT  
NUMERATORS AND DIFFERENT DENOMINATORS**

**I CAN RECORD THE RESULT OF  
COMPARISONS WITH SYMBOLS**

**>, =, OR <**

**AND JUSTIFY THE CONCLUSIONS,  
E.G. BY USING A VISUAL FRACTION MODEL.**

$$\frac{1}{3} > \frac{1}{6}$$



**I CAN ADD MIXED NUMBERS WITH  
LIKE DENOMINATORS**

$$1\frac{1}{3} + \frac{2}{3}$$

**I CAN SUBTRACT MIXED NUMBERS  
WITH LIKE DENOMINATORS**

$$2\frac{4}{5} - \frac{1}{5}$$

# **I CAN ADD FRACTIONS WITH LIKE DENOMINATORS**

$$\frac{1}{10} + \frac{3}{10}$$

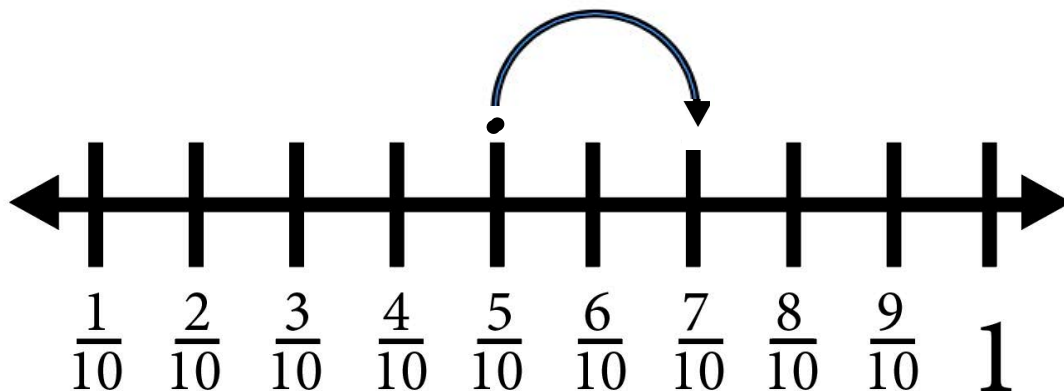
# **I CAN SUBTRACT FRACTIONS WITH LIKE DENOMINATORS**

$$\frac{5}{10} - \frac{4}{10}$$

**I CAN SOLVE ADDITION FRACTION WORD PROBLEMS BY USING VISUAL FRACTION MODELS AND EQUATIONS TO REPRESENT THE PROBLEM.**

**RAUL RAN  $\frac{2}{10}$  OF A MILE IN THE MORNING AND  $\frac{5}{10}$  OF A MILE IN THE AFTERNOON.**

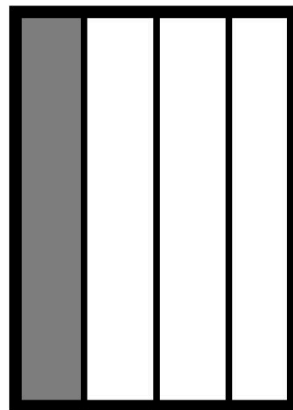
**HOW FAR DID HE RUN?**





**I CAN SOLVE SUBTRACTION  
FRACTION WORD PROBLEMS BY  
USING VISUAL FRACTION MODELS  
AND EQUATIONS TO REPRESENT THE  
PROBLEM**

**GRANDMA MADE A CAKE.  
THE KIDS ATE  $\frac{1}{4}$  OF IT.  
HOW MUCH IS LEFT?**



# I CAN MULTIPLY A FRACTION BY A WHOLE NUMBER

$$2 \times \frac{1}{4}$$

***I CAN SOLVE WORD PROBLEMS  
INVOLVING MULTIPLICATION OF  
FRACTIONS BY A WHOLE NUMBER BY  
USING VISUAL FRACTION MODELS AND  
EQUATIONS REPRESENTING  
THE PROBLEM***

***MARY RAN 1/4 OF A MILE FOR 3 DAYS.  
HOW FAR DID SHE RUN?***

$$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{3}{4}$$

**I CAN  
UNDERSTAND  
DECIMALS**

**I CAN EXPRESS A FRACTION WITH  
A DENOMINATOR 10 AS AN  
EQUIVALENT FRACTION WITH A  
DENOMINATOR OF 100.**

**I CAN ADD TWO FRACTIONS WITH  
DENOMINATORS OF 100**

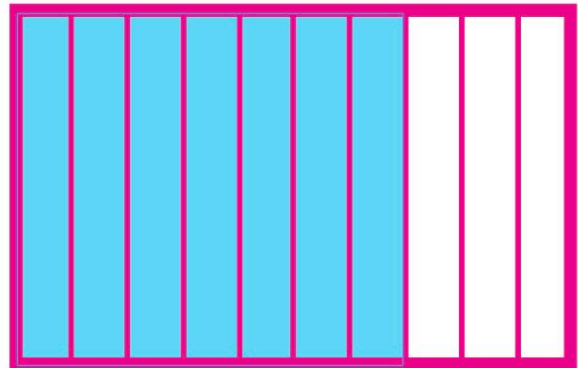
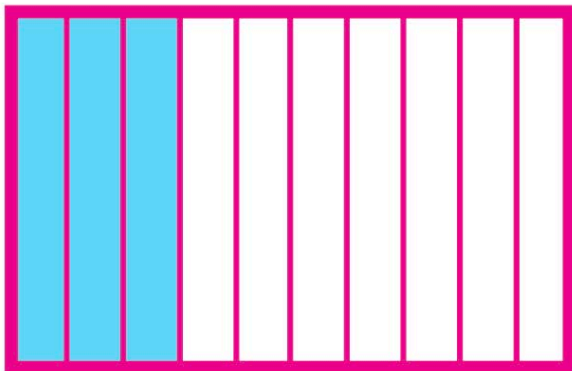
$$\frac{2}{10} = \frac{20}{100}$$

**I CAN USE  
DECIMAL NOTATION  
FOR FRACTIONS WITH  
DENOMINATORS 10 AND 100**

$$.10 = \frac{1}{10}$$

**I CAN COMPARE 2 DECIMALS TO  
HUNDREDTHS BY REASONING ABOUT  
THEIR SIZE.**

$$.3 > .7$$



**I can talk about  
whole numbers  
through  
1,000,000,000 and  
decimals to the  
hundredths using  
expanded notation  
and numerals.**

$$2570 = 2000 + 500 + 70 + 0$$

**TWO THOUSAND  
FIVE HUNDRED  
SEVENTY**



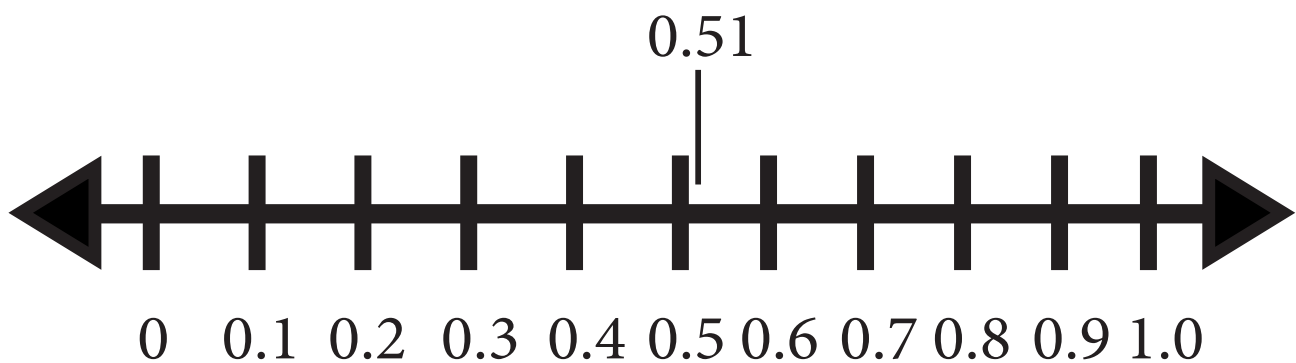
**I can model  
decimals using  
different  
visual models  
and money.**



**I can relate  
decimals to  
fractions that  
name tenths  
and hundredths.**

$$.50 = \frac{5}{10}$$

**I can find,  
place and  
identify  
decimals on  
a number  
line.**



**I can compare  
whole numbers  
to 1 billion  
using symbols.**

$$2,345,600 > 2,159,900$$

**I can order  
numbers  
to 1 billion.**

**2,345,678 comes  
before 2,789,345**

**I can round  
numbers to the  
hundred  
thousands.**

$$245,909 \approx 200,000$$

**I can decompose a  
fraction into unit  
fractions.**

$$\frac{4}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$$

**I can decompose a  
fraction in more than  
1 way.**

$$\frac{4}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$$

$$\frac{4}{5} = \frac{3}{5} + \frac{1}{5}$$



**I can generate equivalent fractions using different methods.**

$$\frac{2}{3} = \frac{4}{6}$$

**I can compare  
2 fractions  
with different  
numerators  
and different  
denominators  
with symbols.**

$$\frac{2}{3} > \frac{1}{6}$$

**I can add  
fractions with  
equal  
denominators  
using  
different models  
and properties.**

$$\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$$

**I can subtract  
fractions with  
equal  
denominators  
using  
different models  
and properties.**

$$\frac{4}{8} + \frac{3}{8} = \frac{1}{8}$$

**I can reason  
about sums of  
fractions using  
benchmark  
fractions.**

$$\frac{1}{2} + \frac{3}{2}$$

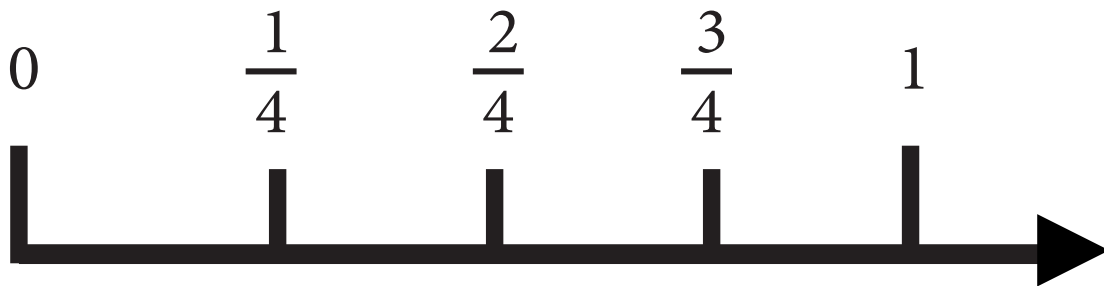
**This is more than 1**

**I can reason  
about  
differences of  
fractions using  
benchmark  
fractions.**

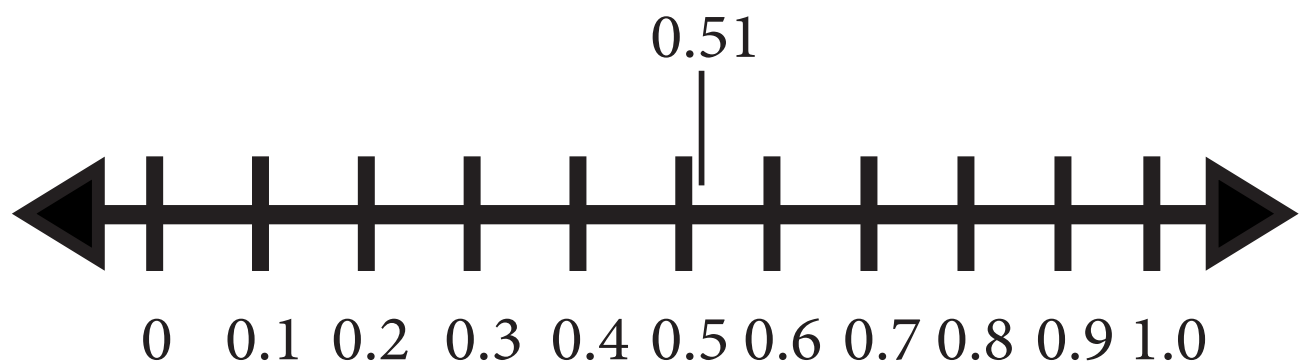
$$\frac{9}{8} - \frac{5}{8}$$

**This is less than 1**

**I can model  
fractions on a  
number line.**



**I can represent  
decimals on a  
number line.**





**I can add  
whole  
numbers.**

$$\begin{array}{r} 2456 + 1999 \\ = 4,455 \end{array}$$

**I can subtract  
whole  
numbers.**

$$\begin{array}{r} 6000 - 2999 = \\ 3001 \end{array}$$

**I can add  
decimals.**

$$**.27 + .28 = .55**$$

**I can  
subtract  
decimals.**

$$.49 - .25 = .24$$

**I can multiply a  
number by 10  
using different  
properties and  
place value.**

$$**25 \times 10 = 250**$$

**I can multiply a  
number by 100  
using different  
properties and  
place value.**

$$**25 \times 100 = 2500**$$

**I can multiply 2  
two-digit numbers  
using arrays, area  
models or equations.**

$$12 \times 12 = 144$$

**I can divide up to a 4-digit  
number by a 1 digit  
number using arrays, area  
models or  
equations.**

$$4004 \div 4 = 2002 \div 2 = 1001$$



**I can round  
numbers.**

$$5098 \approx 5000$$

# I can solve 2-step multiplication problems.

Susie had 5 bags with 10 marbles. She  
gave away 2 bags. How many  
marbles does she have left?

**I can solve 2-step  
division problems with  
remainders.**

**There were 36 marbles. The  
store put them in 4 bags.  
They sold 2 of the bags.  
How many marbles are left?**

$$36 \div 4 = 9$$

$$2 \times 9 = 18$$

$$36 - 18 = 18$$

# **I can solve multi-step problems with strip diagrams and equations.**

**My brother has 5 marbles. I have 3 times as many. How many do we have altogether?**



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## About the Dr. Nicki Newton



Dr. Nicki Newton is an education consultant who works with schools and districts around the country and Canada on k-8 math curriculum. She has taught elementary school, middle school, and graduate school. Dr Nicki has an Ed.M. and an Ed.D from Teachers, College Columbia University. She is greatly interested in teaching and learning practices around the world and has researched education in Denmark, Guatemala and India. She has written several books, including being a part of the curriculum team for the new McGraw Hill Reveal Math series. She is currently working on a book about counting.

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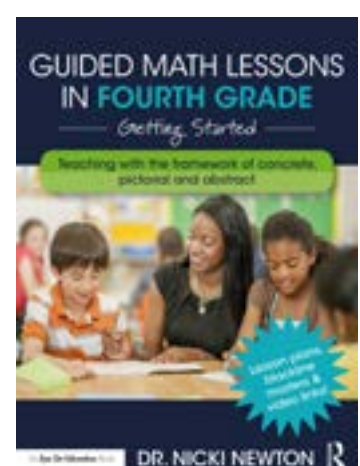
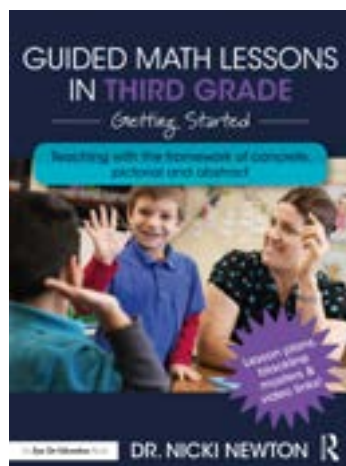
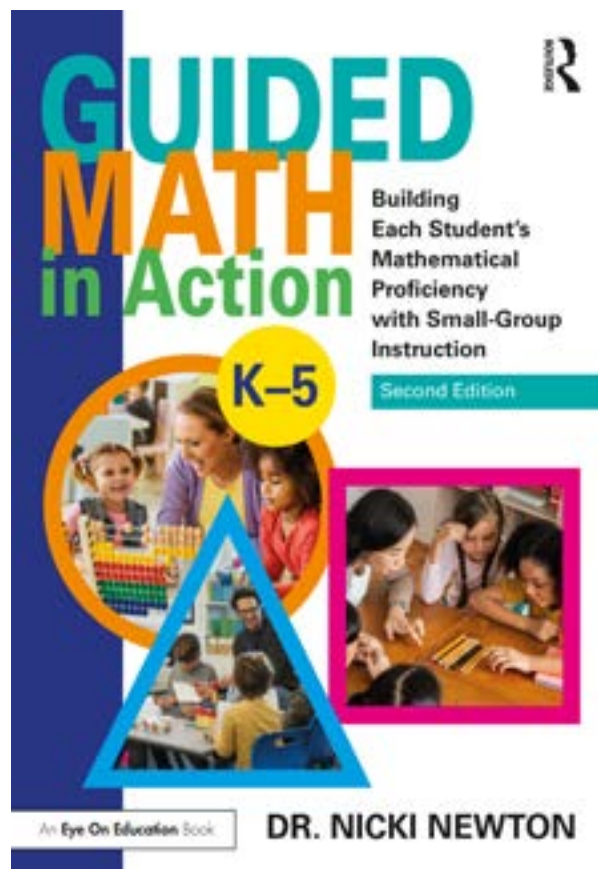
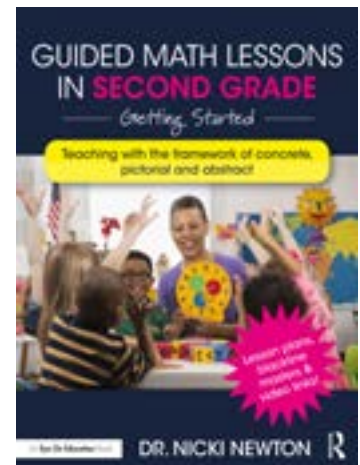
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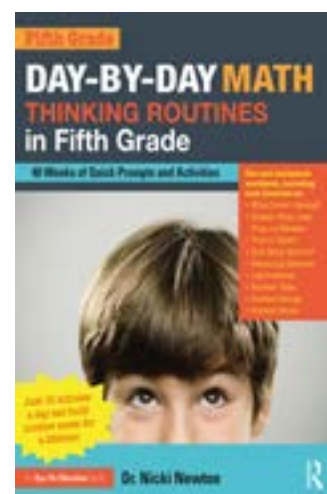
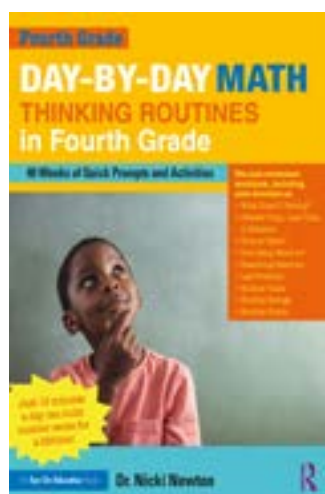
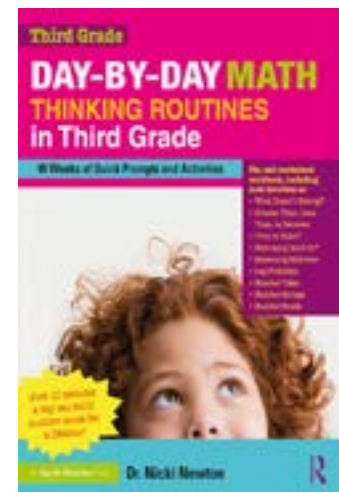
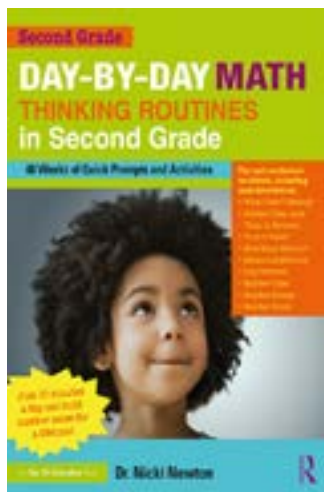
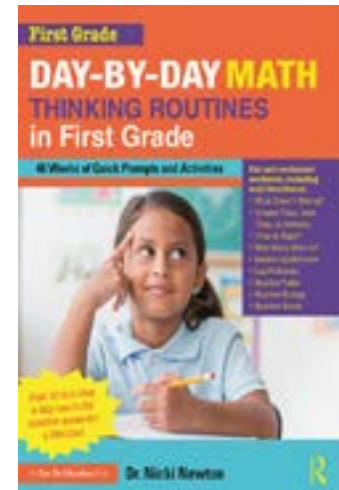
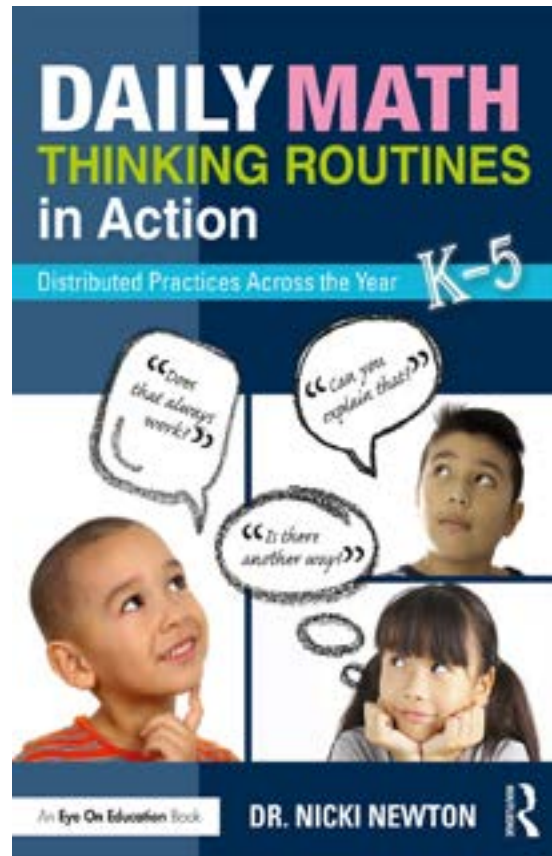
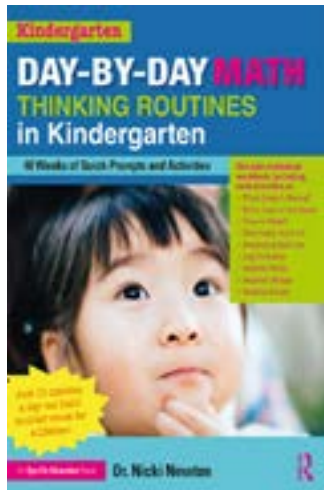
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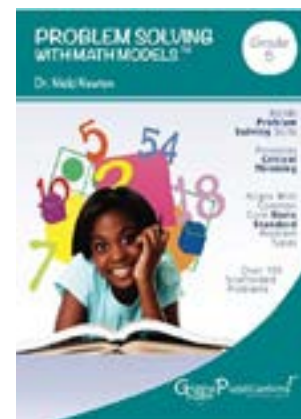
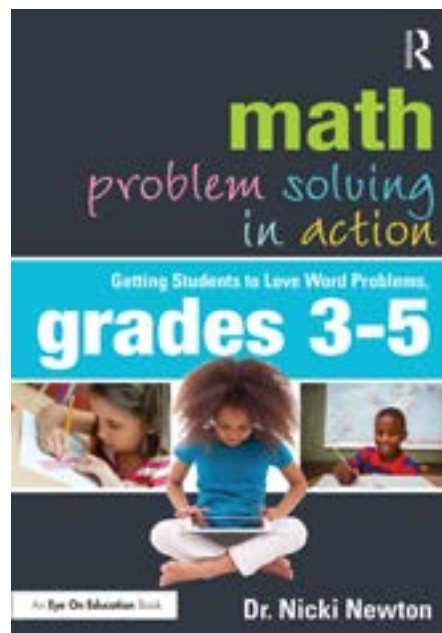
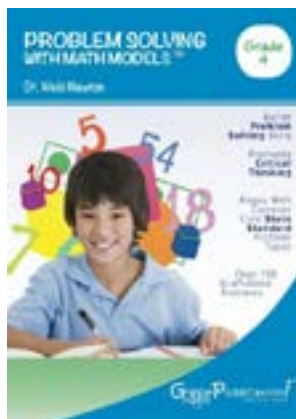
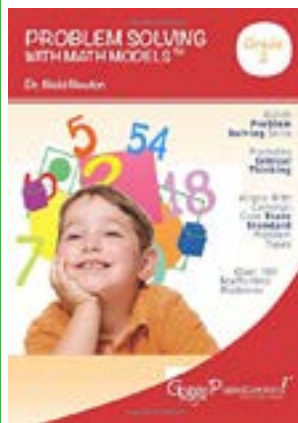
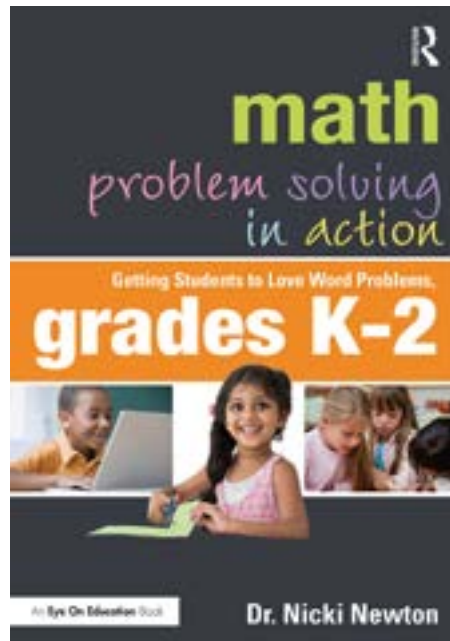
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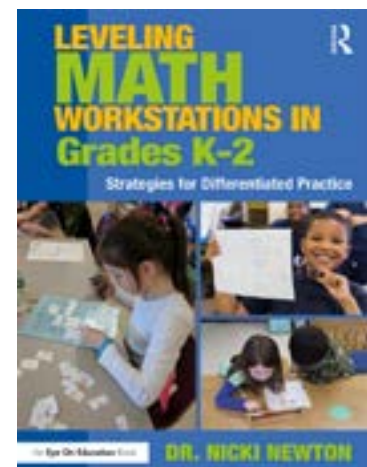
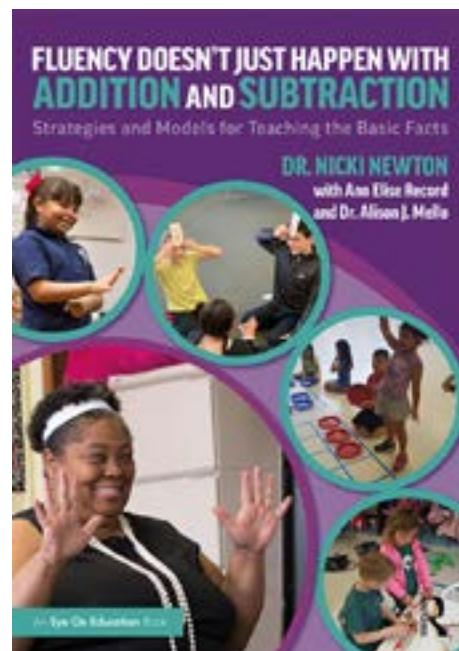
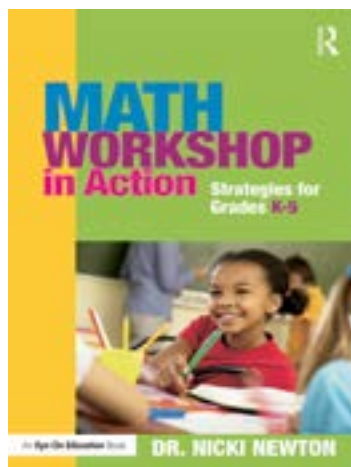
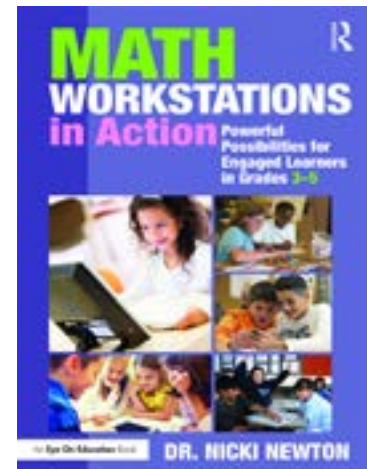
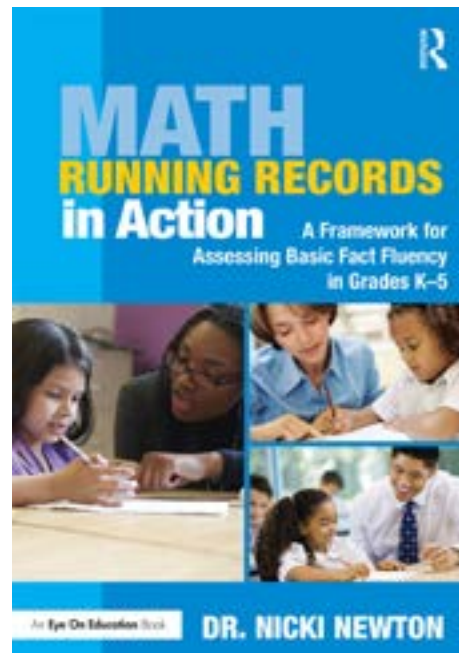
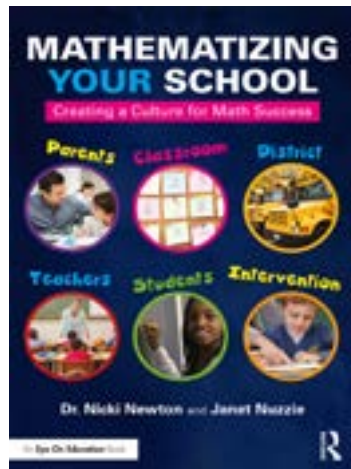


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