Dear Parents,

This is a math packet that your child is being asked to complete over the summer. It is a review of the concepts that have been taught in Third Grade. Please have your child return it to their homeroom teacher during the first week of school. This will count towards their first math grade of the school year. If you have any questions, please feel free to contact us.

Thank you,

The Third Grade Team

Pmiller@ndes.org

NAME _____ **DATE** _____

Fast Tens & Fast Nines Practice

1 Complete the fast tens addition facts.

10	3	4	10	6	10	10	9
+ 2	+ 10	+ 10	+ 5	+ 10	+ 7	+ 8	+ 10
____	____	____	____	____	____	____	____

2 Complete the fast nines addition facts.

9	3	4	9	9	7	8	9
+ 2	+ 9	+ 9	+ 5	+ 6	+ 9	+ 9	+ 9
____	____	____	____	____	____	____	____

3 Complete the take away ten subtraction facts.

18	12	15	17	13	16	14	19
− 10	− 10	− 10	− 10	− 10	− 10	− 10	− 10
____	____	____	____	____	____	____	____

4 Complete the runaway ones subtraction facts.

17	13	15	14	16	18	12	19
− 7	− 3	− 5	− 4	− 6	− 8	− 2	− 9
____	____	____	____	____	____	____	____

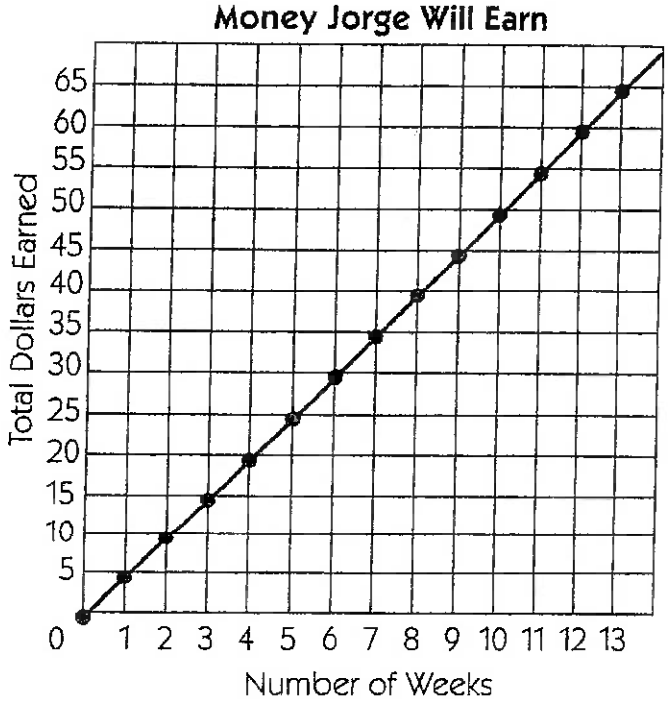
CHALLENGE

5 Look at the facts in problems 1 and 2. Describe one pattern you see.

NAME _____ DATE _____

Jorge's Saving Plans

Jorge wants to buy a digital music player that costs $50. He offered to water his neighbor's plants for $5 per week. The graph below shows how much money Jorge will have if he saves it all.



1 How long will it take Jorge to earn $20? _____ weeks

2 How long will it take Jorge to earn enough money to buy the music player?

_____ weeks

3 How many weeks would it take for Jorge to earn $60? _____ weeks

CHALLENGE

4 If Jorge spent $20 after the 7th week, how many weeks in all would it take him to have enough money to buy the music player?

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Missing Numbers Fill-In

1 Fill in the missing numbers in the make ten addition facts.

5 + ____ = 10 ____ + 3 = 10 6 + ____ = 10 10 = ____ + 8

0 + ____ = 10 9 + ____ = 10 10 = ____ + 7 10 = 4 + ____

2 Fill in the missing numbers in the equations below.

2 + ____ = 4 16 = ____ + 8 6 = 3 + ____ ____ = 9 + 9

5 + ____ = 10 ____ + 6 = 12 8 = ____ + 4 7 + 7 = ____

3 Fill in the missing numbers to complete the subtraction facts.

15 − □ = 8	13 − 3 = □	18 − □ = 9	11 − □ = 4	16 − 9 = □	□ − 3 = 8
17 − □ = 9	12 − 3 = □	11 − 2 = □	12 − □ = 9	□ − 2 = 12	13 − □ = 8

CHALLENGE

4 What is one way the equations in problem 2 are alike?

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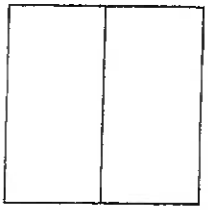
Name the Fraction

1 Fill in the bubble next to the fraction that shows how much of each shape is filled in.

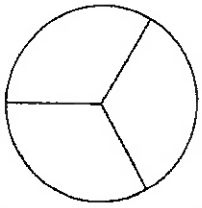
example

○ $\frac{1}{2}$
○ $\frac{1}{3}$
○ $\frac{1}{4}$



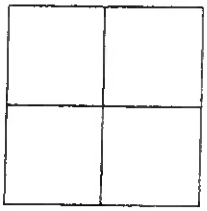
a

○ $\frac{1}{2}$
○ $\frac{1}{3}$
○ $\frac{1}{4}$



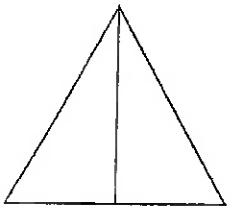
b

○ $\frac{1}{2}$
○ $\frac{1}{3}$
○ $\frac{1}{4}$



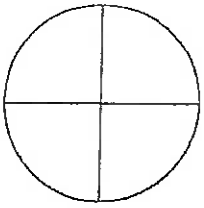
c

○ $\frac{1}{2}$
○ $\frac{1}{3}$
○ $\frac{1}{4}$



c

○ $\frac{1}{2}$
○ $\frac{1}{3}$
○ $\frac{1}{4}$



e

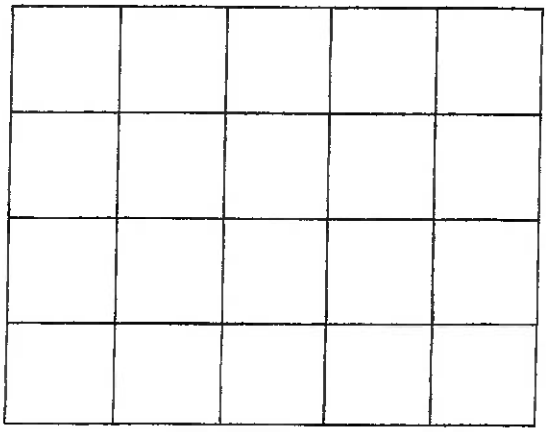
○ $\frac{1}{2}$
○ $\frac{1}{3}$
○ $\frac{1}{4}$

CHALLENGE

2 Follow the instructions to color the array at the right.

- Color half the squares in the array red.
- Color one-fourth of the squares in the array blue.
- Color the rest of the squares in the array green.

What fraction of the array is green?



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Related Addition & Subtraction Facts

1 Complete these addition facts.

4	5	8	3	5	10	4
+ 6	+ 5	+ 2	+ 7	+ 6	+ 3	+ 10
____	____	____	____	____	____	____

2 Complete these addition facts. Use the answers above to help.

4	7	8	8	8	9	9
+ 7	+ 5	+ 4	+ 5	+ 6	+ 4	+ 3
____	____	____	____	____	____	____

3 Complete these subtraction facts.

9	11	12	13	12	11	12
- 4	- 4	- 7	- 8	- 4	- 5	- 6
____	____	____	____	____	____	____
14	13	11	14	14	10	14
- 8	- 5	- 7	- 7	- 6	- 5	-5
____	____	____	____	____	____	____

CHALLENGE

4 Solve these addition problems.

150	250	350	440	140	220	170
+ 150	+ 140	+ 260	+ 460	+ 670	+ 480	+ 530
____	____	____	____	____	____	____

5 Solve these subtraction problems.

130	480	129	100	300	250	140
- 3	- 140	- 13	- 4	- 97	- 25	- 29
____	____	____	____	____	____	____

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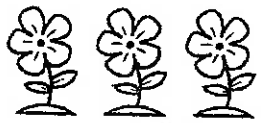
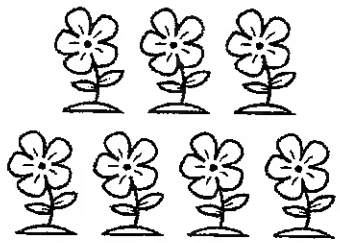
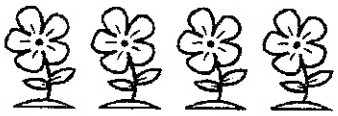
Leaves & Flower Petals

Answer each question below. Write an addition or multiplication equation to show how you figured it out.

Picture	Answer the question.	Write an equation.
example 	There are 3 flowers. How many *leaves*? 6	$2+2+2=6$ or $3 \times 2 = 6$
1 	There are 3 flowers. How many *petals*?	
2 	There are 7 flowers. How many *leaves*?	
3 	There are 4 flowers. How many *petals*?	

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Understanding Place Value

1 Circle the place value of the underlined digit. Then write its value.

Number	Place Value	Value
ex a 45̲2	ones (tens) hundreds	50
ex b 10̲3	(ones) tens hundreds	3
a 3̲82	ones tens hundreds	

Number	Place Value	Value
b 16̲4	ones tens hundreds	
c 4̲71	ones tens hundreds	
d 5̲04	ones tens hundreds	

2 Write > or < on the line to make a true statement.

ex 456 _<_ 546	**a** 96 _____ 69	**b** 326 _____ 362	**c** 127 _____ 217
d 960 _____ 906	**e** 312 _____ 231	**f** 304 _____ 430	**g** 719 _____ 790

3 Fill in the missing digits to make each statement true. There is more than one right answer for each one.

ex 3_2_7 < 347	**a** 435 > ___35	**b** 107 < ___07	**c** 935 < 93___
d 2___3 > 263	**e** 1___7 < 137	**f** 276 > 2___6	**g** 119 < 1___9

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Addition & Subtraction Practice

1 Complete the addition facts.

9 + 4 =	5 + 7 =	8 + 5 =	4 + 7 =	9 + 6 =	8 + 6 =	9 + 3 =
7 + 8 =	8 + 9 =	9 + 9 =	8 + 3 =	4 + 8 =	7 + 6 =	9 + 7 =

2 Complete the subtraction facts.

20 − 11 =	18 − 9 =	16 − 8 =	15 − 7 =	13 − 8 =	17 − 9 =	14 − 6 =
15 − 9 =	14 − 7 =	18 − 10 =	13 − 5 =	12 − 9 =	15 − 6 =	16 − 7 =

CHALLENGE

3 Use what you know about basic facts to solve these subtraction problems.

800 − 400 =	300 − 297 =	1,000 − 3 =	400 − 100 =	400 − 40 =	600 − 2 =	130 − 128 =
100 − 80 =	900 − 2 =	160 − 2 =	216 − 108 =	500 − 225 =	125 − 75 =	214 − 107 =

4 Add and subtract to solve these problems.

50 + 225 − 70 = _____ 120 − 80 + 460 = _____ 316 − 208 + 100 = _____

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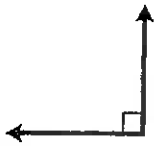
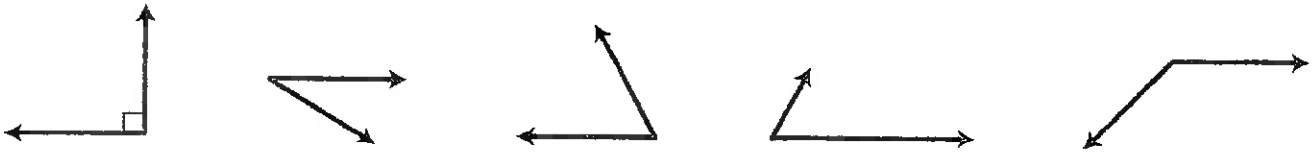
Right, Acute & Obtuse Angles

1 Use the information below to help solve the following problems.

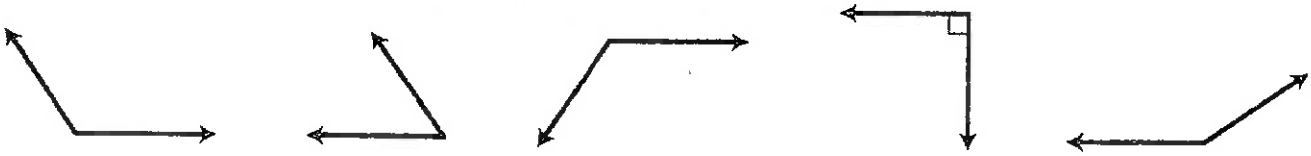
A right angle is exactly 90 degrees.	An acute angle is less than 90 degrees.	An obtuse angle is more than 90 degrees.
		

a Circle all the right angles.

b Circle all the acute angles.



c Circle all the obtuse angles.



2 Draw another ray to make an acute angle.

3 Draw another ray to make an obtuse angle.

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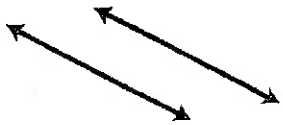
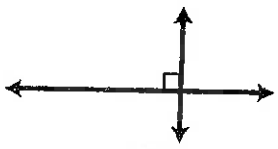
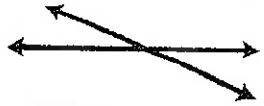
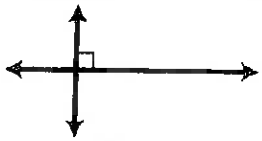
Parallel, Intersecting & Perpendicular Lines

Use the following information to help solve the problems below.

Parallel lines are always the same distance apart. They will never cross.	Intersecting lines cross each other.	Perpendicular lines are special intersecting lines. Where they cross, they form a right angle.
		

1 Fill in the bubble(s) next to the word(s) that best describe(s) each pair of lines.

a 	○ parallel ○ intersecting ○ perpendicular
b 	○ parallel ○ intersecting ○ perpendicular
c 	○ parallel ○ intersecting ○ perpendicular
d 	○ parallel ○ intersecting ○ perpendicular

2 Draw a pair of intersecting lines.

3 Draw three lines that are all parallel.

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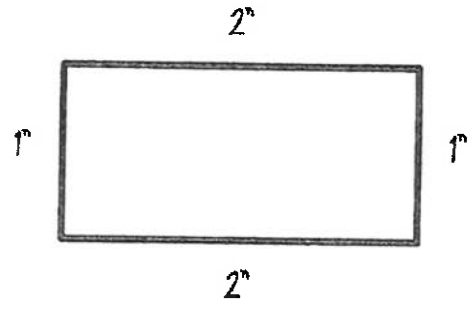
Perimeter Practice

Perimeter is the total length of all sides of a shape. To find the perimeter, add the lengths of all the sides of a shape.

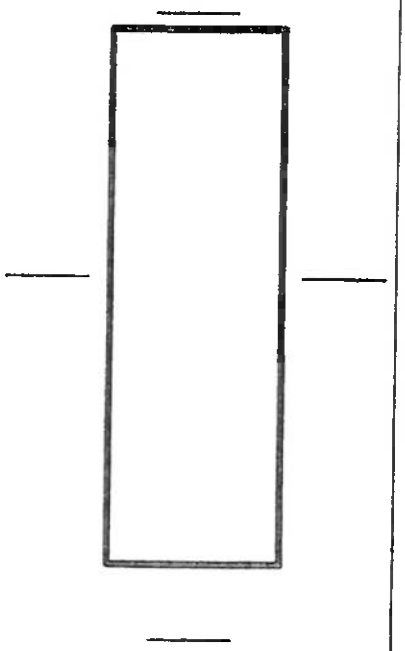
1 Use a ruler marked in inches to measure the sides of the squares and rectangles. Label each side. Then find the perimeter of each shape. Show your work.

example Perimeter = 6"

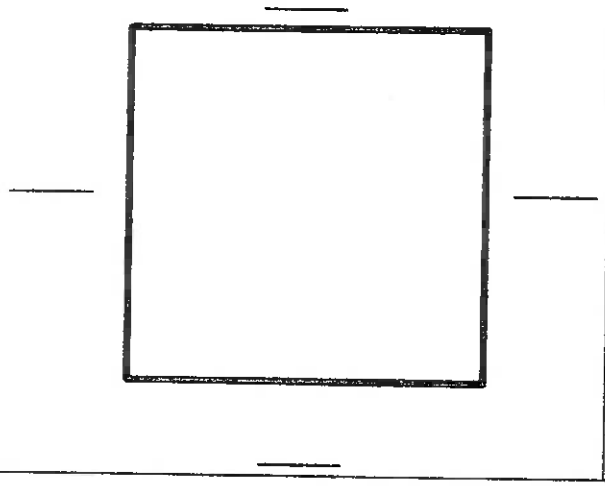
1
2
1
+ 2
6



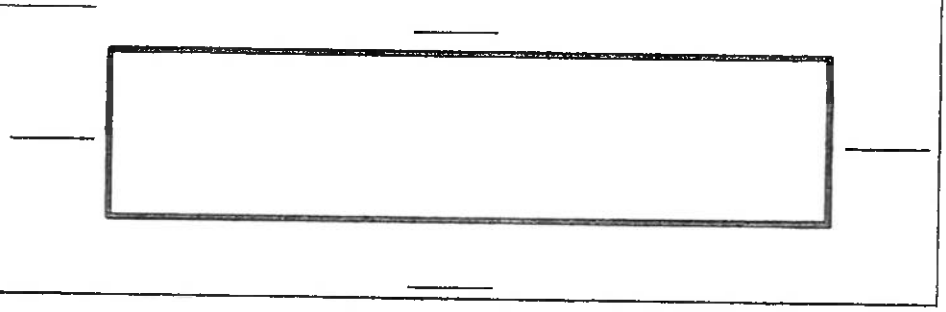
a Perimeter = _____



b Perimeter = _____



c Perimeter = _____



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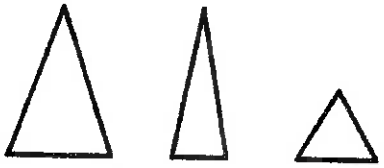
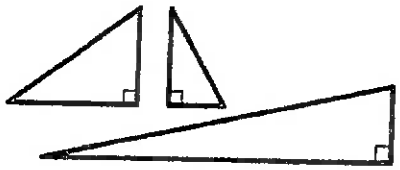
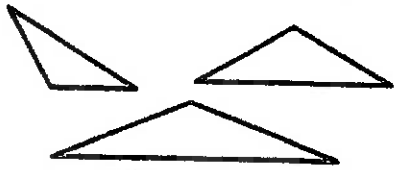
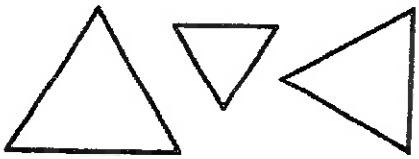
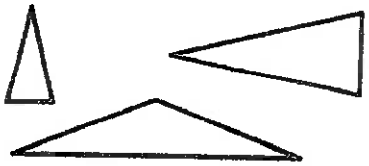
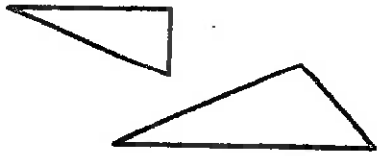
Different Types of Triangles

Use the following information to help solve the problems below.

- You can group triangles by the size of their angles.

Acute Triangles all 3 angles are acute	Right Triangles 1 angle is a right angle	Obtuse Triangles 1 angle is an obtuse angle
		

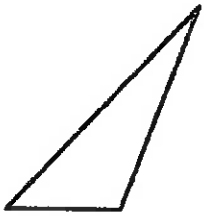
- You can also group triangles by the lengths of their sides.

Equilateral Triangles all 3 sides are the same length	Isosceles Triangles 2 sides are the same length	Scalene Triangles no sides are the same length
		

1 Fill in the bubble to show what kind of triangle each one is.

a

- ○ acute
- ○ right
- ○ obtuse



b

- ○ acute
- ○ right
- ○ obtuse

c

- ○ acute
- ○ right
- ○ obtuse

d

- ○ equilateral
- ○ isosceles
- ○ scalene

e

- ○ equilateral
- ○ isosceles
- ○ scalene

f

- ○ equilateral
- ○ isosceles
- ○ scalene

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T-Shirts, Erasers & Marbles

1 Fill in the bubble next to the equation that will help you solve each word problem.

a Marco wants to buy a T-shirt for each of his 4 cousins. Each T-shirt costs $12. How much will Marco spend on the T-shirts in all?

○ 4 + 12 = ? ○ 4 × 12 = ? ○ 12 − 4 = ? ○ 12 ÷ 4 = ?

b Kaylee has 4 erasers. Imani has 12 erasers. How many more erasers does Imani have than Kaylee?

○ 4 + 12 = ? ○ 4 × 12 = ? ○ 12 − 4 = ? ○ 12 ÷ 4 = ?

c Lucia had 12 marbles. Her sister gave her 4 more. How many marbles does Lucia have now?

○ 4 + 12 = ? ○ 4 × 12 = ? ○ 12 − 4 = ? ○ 12 ÷ 4 = ?

CHALLENGE

2 Use what you know about multiplication strategies to solve the problems below.

20 × 2	396 × 1	30 × 2	768 × 1	300 × 2	40 × 10	40 × 5
42 × 10	42 × 5	365 × 10	999 × 1	60 × 5	53 × 10	428 × 10

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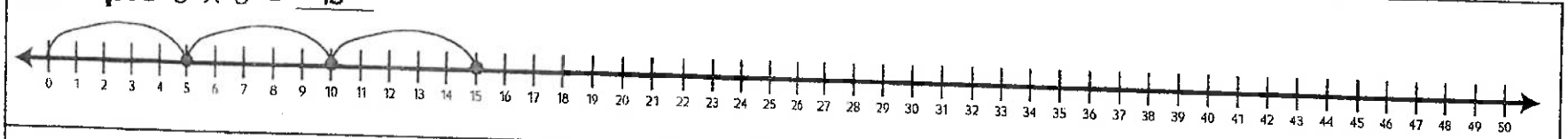
Multiplication Practice

1 Complete the multiplication facts.

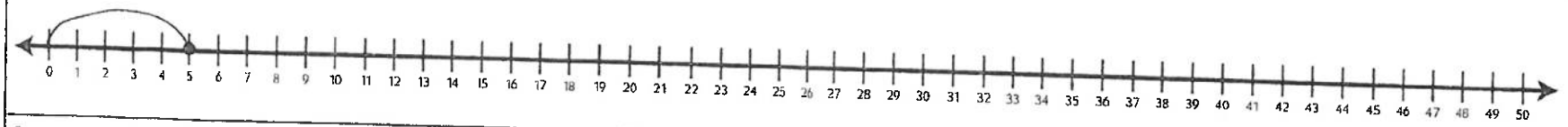
1	2	8	9	10	5	10	5	8
× 6	× 7	× 1	× 2	× 3	× 3	× 4	× 4	× 10
_____	_____	_____	_____	_____	_____	_____	_____	_____

2 Show equal jumps on the number line to solve each multiplication problem. If you already know the answer, use the number line to show how someone else could solve the problem. The first jump is done for you.

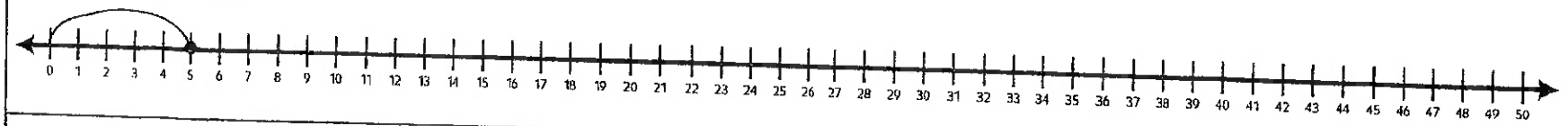
example 3 × 5 = 15



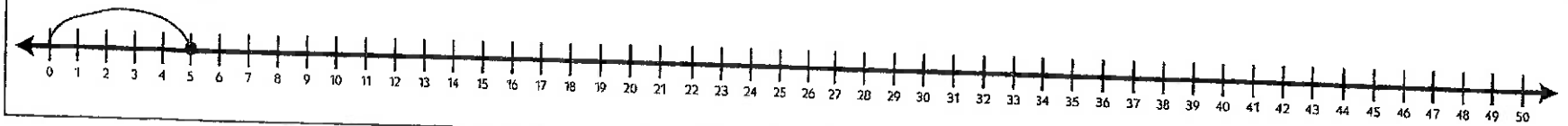
a 7 × 5 = _____



b 9 × 5 = _____



c 5 × 5 = _____



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Multiplication & Division Fact Families

1 The fact family that belongs with each array is missing an equation. Write the missing equation for each fact family.

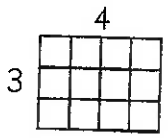
example

3 × 4 = 12

4 × 3 = 12

12 ÷ 3 = 4

12 ÷ 4 = 3



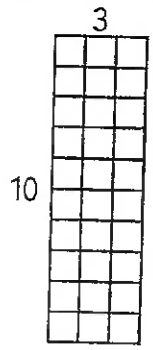
a

10 × 3 = 30

___ × ___ = ___

30 ÷ 3 = 10

30 ÷ 10 = 3



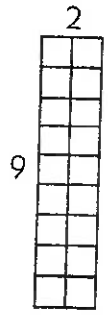
b

2 × 9 = 18

___ × ___ = ___

18 ÷ 2 = 9

18 ÷ 9 = 2



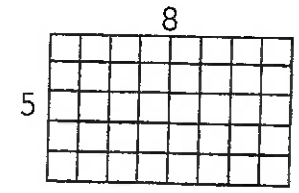
c

5 × 8 = 40

8 × 5 = 40

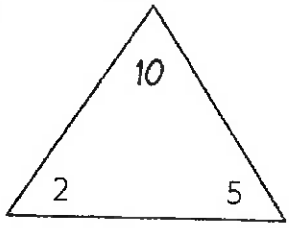
___ ÷ ___ = ___

40 ÷ 8 = 5



2 Fill in the missing number in each triangle and then write the fact family.

example



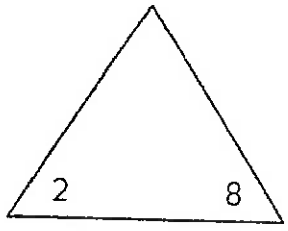
2 × 5 = 10

5 × 2 = 10

10 ÷ 2 = 5

10 ÷ 5 = 2

a



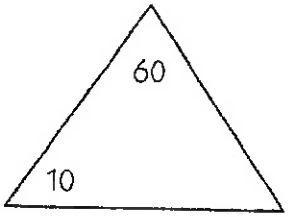
___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

b



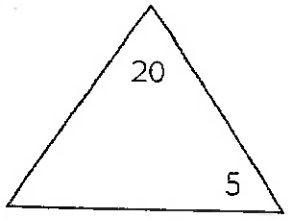
___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

c



___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

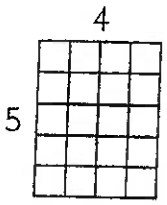
___ ÷ ___ = ___

NAME _____ DATE _____

Fact Families & Missing Numbers

1 Write the multiplication and division fact family that belongs with each array.

example



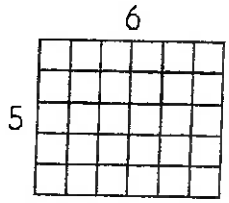
5 × 4 = 20

4 × 5 = 20

20 ÷ 5 = 4

20 ÷ 4 = 5

a



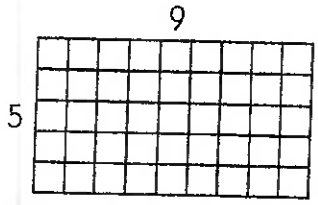
___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

b



___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

2 Fill in the missing numbers below.

2 × □ = 12	7 × □ = 35	2 × 8 = □	□ × 5 = 50	9 × 5 = □	3 × □ = 15
5 × 8 = □	10 × □ = 30	6 × 5 = □	2 × □ = 14	5 × □ = 25	□ × 2 = 18

CHALLENGE

3

a 16 + 20 − (2 × 4) = ____ **b** (7 × 5) + 150 = ____ **c** (10 × 10) − 79 = ____

NAME _____ DATE _____

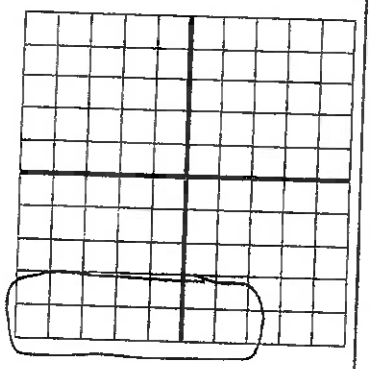
Multiplication Arrays

1 Complete the multiplication facts.

3 × 4 =	3 × 3 =	4 × 6 =	4 × 4 =	6 × 3 =	3 × 8 =	4 × 9 =
6 × 7 =	3 × 9 =	5 × 2 =	3 × 5 =	5 × 4 =	4 × 7 =	8 × 0 =

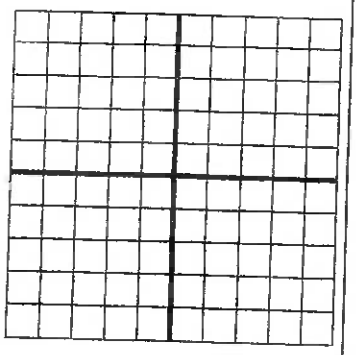
2 Use the array to show how you could solve each fact.

example 3 × 7 = 21

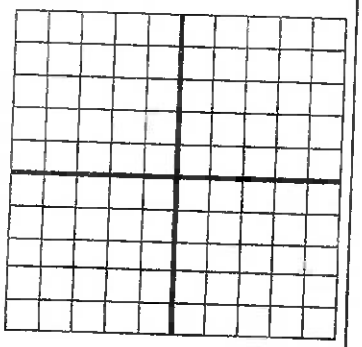


2 × 7 = 14
14 + 7 = 21

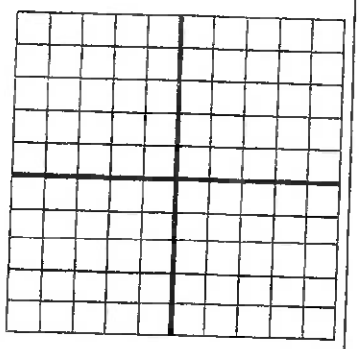
a 4 × 8 = _____



b 6 × 9 = _____



c 7 × 4 = _____



NAME _____ DATE _____

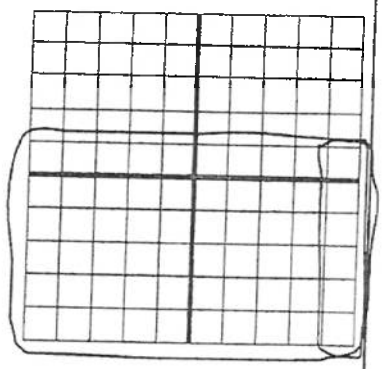
More Multiplication Arrays

1 Complete the multiplication facts.

6 × 7 =	3 × 8 =	4 × 9 =	9 × 9 =	4 × 7 =	3 × 9 =	7 × 3 =
8 × 2 =	2 × 9 =	6 × 8 =	3 × 6 =	5 × 9 =	6 × 6 =	9 × 7 =

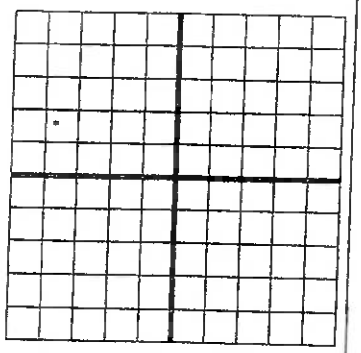
2 Use the array to show how you could solve each fact if you didn't already know the answer.

example 6 × 9 = 54

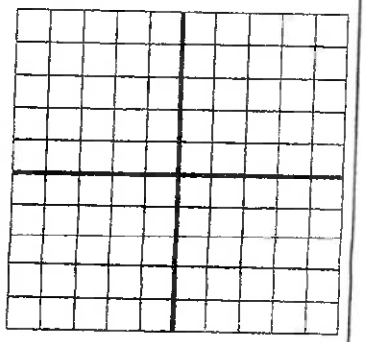


6 × 10 = 60
60 − 6 = 54

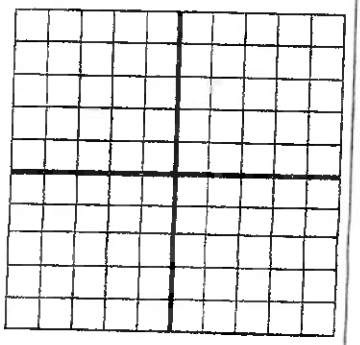
a 7 × 8 = _____



b 7 × 7 = _____



c 8 × 4 = _____



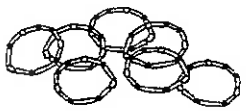
NAME _____ DATE _____

Flowers & Gifts

1a Will is helping his mom get ready for a party. His mom wants Will to put flowers in jars to put on the tables. He needs to put 7 flowers in each jar. He has 45 flowers. How many jars can he fill? Show all your work.

b How many flowers did Will have left over?

2 Mai is buying gifts for her 4 friends. She wants to get each friend a bracelet that costs $4 and a mechanical pencil that costs $3. How much money will she spend in all? Show all your work.



CHALLENGE

3 Mai changed her mind and decided to get each of her 4 friends a comic book that cost $3.99 and an eraser that cost 99¢. How much money did she spend in all? Show all of your work.

NAME _____ DATE _____

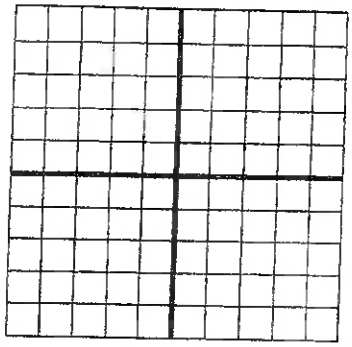
Missing Numbers & Fact Families

1 Fill in the missing numbers below.

2 × □ = 12	□ × 3 = 27	7 × □ = 14	□ × 3 = 30	□ × 2 = 10	10 × □ = 0
4 × 3 = □	10 × □ = 70	4 × 5 = □	7 × 3 = □	6 × □ = 18	□ × 6 = 30

2 Write the multiplication and division fact family that goes with each array. Use the arrays to find each product if you need to.

a



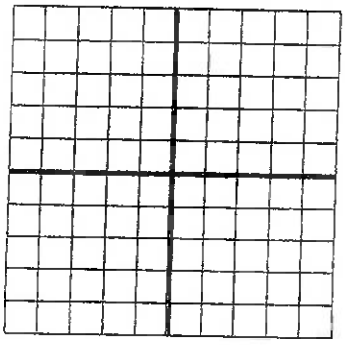
____ × ____ = ____

____ × ____ = ____

____ ÷ ____ = ____

____ ÷ ____ = ____

b



____ × ____ = ____

____ × ____ = ____

____ ÷ ____ = ____

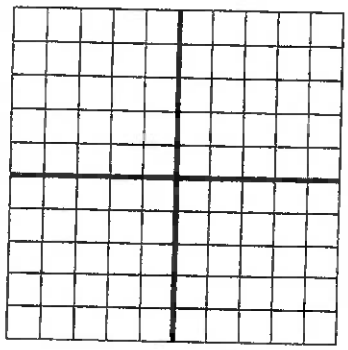
____ ÷ ____ = ____

NAME _____ DATE _____

More Missing Numbers & Fact Families

1 Write the multiplication and division fact family that goes with the array. Use the array to find the product if you need to.

a



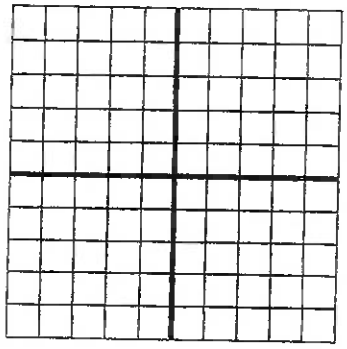
___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

b



___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

2 Fill in the missing numbers below.

4 × □ = 24	□ × 4 = 12	2 × □ = 16	□ × 5 = 50	5 × 7 = □	4 × □ = 16
5 × 6 = □	6 × 6 = □	9 × □ = 27	2 × 9 = □	7 × □ = 49	4 × 7 = □
8 × 4 = □	□ × 9 = 36	6 × □ = 48	□ × 3 = 21	9 × 6 = □	5 × 8 = □

NAME _____ DATE _____

Andrea, Erica & Joe Go Shopping

1 Andrea, Erica, and Joe were shopping with their dad. He said they could split the money that was left after they bought what they needed. They bought a shovel for $8, two packs of seeds that were $3 each, and two bags of flower bulbs that were $4 each. Their dad paid with two $20 bills. How much money did Andrea, Erica, and Joe each get?

a Write a list of steps you will need to take to solve the problem:

b Solve the problem. Show all your work.

c How do you know your answer makes sense? You could solve it another way, use estimation to show that your answer makes sense, or start with your answer and work backwards through the problem.

NAME _____ DATE _____

Multiplication Review

1 Complete the multiplication facts.

10 × 6 =	3 × 1 =	5 × 8 =	9 × 0 =	4 × 7 =	5 × 3 =	6 × 4 =
8 × 2 =	2 × 9 =	9 × 10 =	4 × 6 =	9 × 3 =	5 × 9 =	8 × 4 =

2 Fill in the missing number in each fact. Then write a related division equation.

ex	a	b	c
$\square \times 5 = 20$	$\square \times 2 = 16$	$5 \times \square = 35$	$\square \times 9 = 18$
$20 \div 5 = 4$	___ ÷ ___ = ___	___ ÷ ___ = ___	___ ÷ ___ = ___

CHALLENGE

3 Use what you know about basic facts to complete these problems.

20 × 10 =	21 × 4 =	43 × 2 =	62 × 10 =	62 × 5 =	87 × 1 =	382 × 0 =
24 × 2 =	14 × 10 =	14 × 5 =	63 × 2 =	52 × 3 =	10 × 69 =	24 × 4 =

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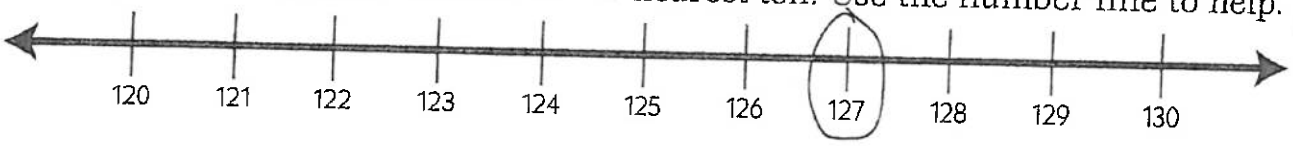
Rounding to the Nearest Ten

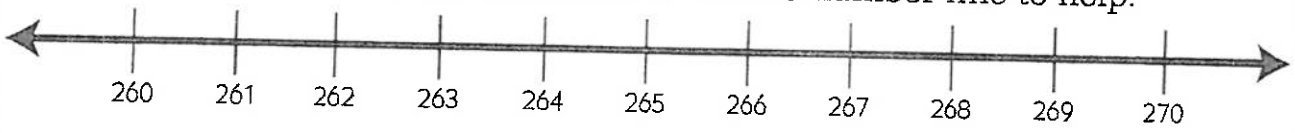
You can use a number line to help round to the nearest ten. If the digit in the ones place is 5 or higher, round up. If the digit in the ones place is less than 5, round down.

example Round each number to the nearest ten. Use the number line to help.



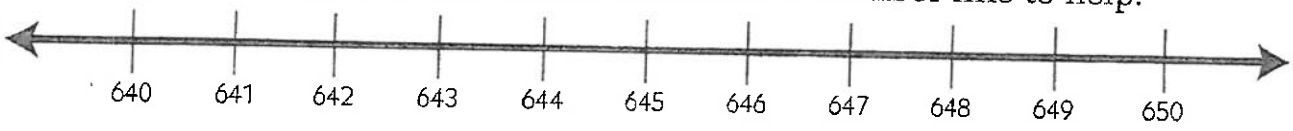
a 127 130

1 Round each number to the nearest ten. Use the number line to help.



a 267 _____ **b** 262 _____ **c** 265 _____

2 Round each number to the nearest ten. Use the number line to help.



a 645 _____ **b** 641 _____ **c** 646 _____

3 Round each number to the nearest ten. (Look at the digit in the ones place. Think about a number line if it helps you.)

a 132 _____ **b** 365 _____ **c** 646 _____

d 282 _____ **e** 617 _____ **f** 539 _____

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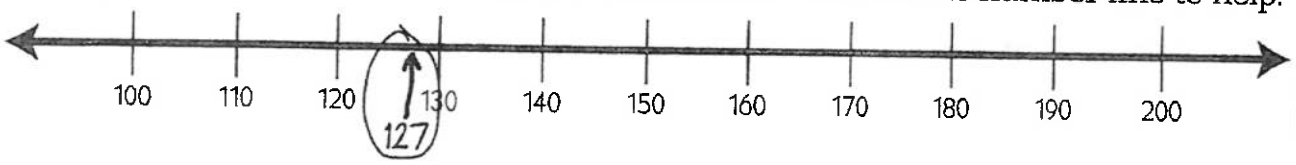
Rounding to the Nearest Hundred

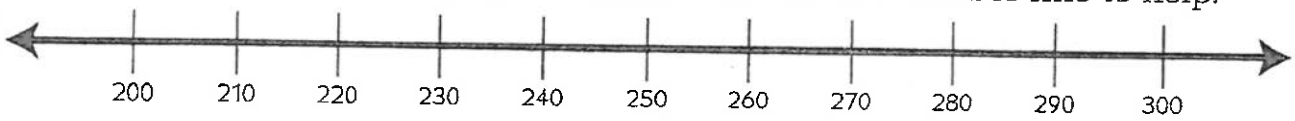
You can use a number line to help round to the nearest hundred. If the digit in the tens place is 5 or higher, round up. If the digit in the tens place is less than 5, round down. *You don't need to think about the number in the ones place.*

example Round each number to the nearest hundred. Use the number line to help.



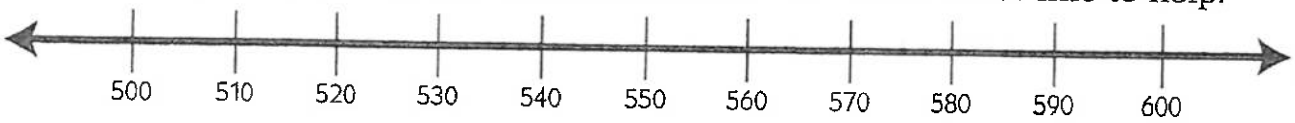
a 127 100

1 Round each number to the nearest hundred. Use the number line to help.



a 217 _____ **b** 256 _____ **c** 283 _____

2 Round each number to the nearest hundred. Use the number line to help.



a 560 _____ **b** 507 _____ **c** 552 _____

3 Round each number to the nearest hundred. (Look at the digit in the tens place. Think about a number line if it helps you.)

a 552 _____ **b** 389 _____ **c** 249 _____

d 438 _____ **e** 817 _____ **f** 270 _____