Students Entering Fourth Grade

Summer Math Packet

Name_____

Dear Parents,

The attached packet provides a range of activities that review and expand on the math concepts your child has learned in school this past year. It is designed to be worked on for 15 to 30 minutes a day throughout the summer, rather than completed in just a few days at the beginning or end of summer. The goal is to keep skills sharp to be ready to move forward into the next school year.

Students **will** be asked to hand in their completed work the first week of school.

Have a great summer!

NAME _____ DATE _____

Place Value Practice 3-Digit Numbers

1 Complete each equation by writing the number in standard form.

example 300 + 20 + 9 = 329	**a** 800 + 40 + 5 = _____
b 500 + 8 = _____	**c** 600 + 20 = _____
d 500 + 80 + 7 = _____	**e** 900 + 10 + 4 = _____

2 Complete each equation by writing the number in expanded form.

example 659 = 600+50+9	**a** 437 = _____
b _____ = 508	**c** 549 = _____
d 692 = _____	**e** _____ =749

3 Write each set of numbers in order from least to greatest.

example 207, 720, 270, 702	207 (least)	270	702	720 (greatest)
a 437, 347, 734, 473	_____ (least)	_____	_____	_____ (greatest)
b 603, 630, 360, 316	_____ (least)	_____	_____	_____ (greatest)
c 191, 119, 190, 109	_____ (least)	_____	_____	_____ (greatest)
d 6,071; 6,107; 6,017; 6,701	_____ (least)	_____	_____	_____ (greatest)

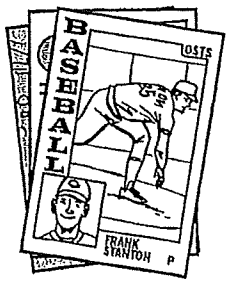
NAME _____ DATE _____

Double-Digit Addition

1 Add each pair of numbers. Show all your work.

a 30 + 65 =	**b** 42 + 35 =	**c** 46 + 38 =
d 53 + 82	**e** 67 + 85	**f** 94 + 76

2 Victor had 126 baseball cards. His cousin gave him 20 more cards. Then his brother gave him 58 more cards. How many baseball cards does Victor have now? Show all your work.



NAME _____ DATE _____

Double-Digit Subtraction

1 Solve the subtraction problems. Show all your work.

a 67 – 28	**b** 83 – 37	**c** 92 – 54

2 Mr. Jones needs 126 pieces of construction paper to do an art project with his students. All he has is a full pack with 50 sheets of paper and an open pack with some more sheets. How many more pieces of paper does he need to borrow from the teacher next door?

a Choose the information that will help you solve the problem.

- ◯ There are 24 students in the class.
- ◯ The open pack has 17 sheets of paper.
- ◯ Packs of construction paper cost $3 each.
- ◯ He has 32 pencils.

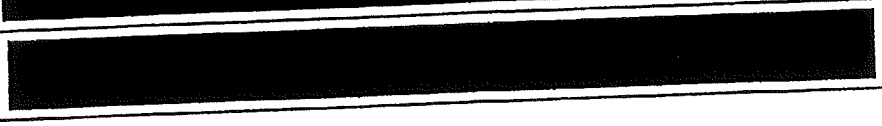
b Solve the problem. Show all your work. Write your answer on the line at the bottom of the page.

Mr. Jones needs to borrow _____ more sheets of paper.

NAME _____ DATE _____

Inches & Feet

1 Use a ruler marked in inches to measure each strip. Write the length in the space next to the strip. Label your answers with the correct units (inches, in. or ")

Strip	Length
a 	
b 	
c 	
d 	

2 There are 12 inches in 1 foot. Use this information to answer the questions below.

a How many feet are equal to 24 inches? _____

b How many feet are equal to 36 inches? _____

3 Rodney has a piece of rope that is 144 inches long. Simon has a piece of rope that is 87 inches long. How much longer is Rodney's piece of rope? Show all your work.

CHALLENGE

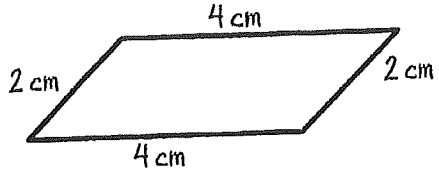
4 Maria and Katy each have a piece of string. When they put the 2 pieces of string together end-to-end, the total length is 84 inches. Maria's string is 6 inches longer than Katy's. How long is Maria's piece of string? How long is Katy's piece of string? Show all your work. Use another piece of paper if you need to.

NAME _____ DATE _____

Finding the Perimeters of Quadrilaterals

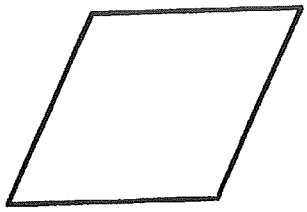
1 Use a ruler to measure the sides of each quadrilateral in centimeters. Label all the sides of each shape. Then find the perimeter. Show your work.

example Perimeter = 12 cm

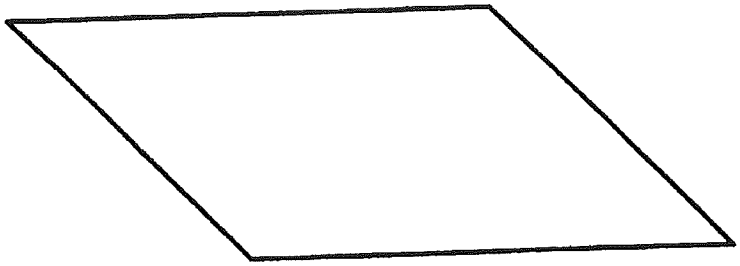


2 + 2 + 4 + 4 = 12 cm

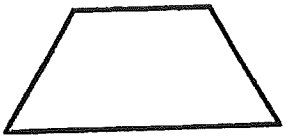
a Perimeter = _____



b Perimeter = _____



c Perimeter = _____



2a Which shape above is a rhombus? _____

b Explain how you can tell.

NAME _____ DATE _____

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

NAME _____ DATE _____

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.

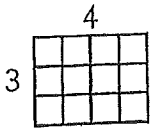
example

3 × 4 = 12

4 × 3 = 12

12 ÷ 3 = 4

12 ÷ 4 = 3



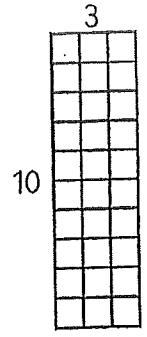
a

10 × 3 = 30

___ × ___ = ___

30 ÷ 3 = 10

30 ÷ 10 = 3



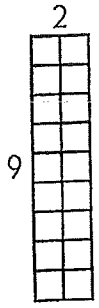
b

2 × 9 = 18

___ × ___ = ___

18 ÷ 2 = 9

18 ÷ 9 = 2



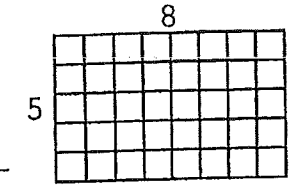
c

5 × 8 = 40

8 × 5 = 40

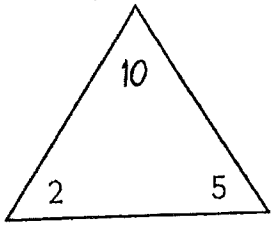
___ ÷ ___ = ___

40 ÷ 8 = 5



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

example



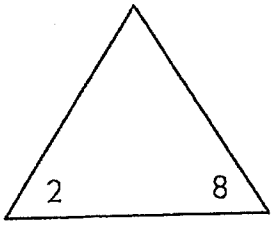
2 × 5 = 10

5 × 2 = 10

10 ÷ 2 = 5

10 ÷ 5 = 2

a



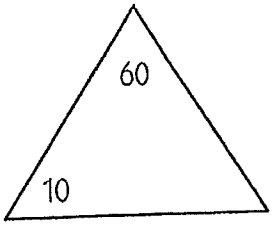
___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

b



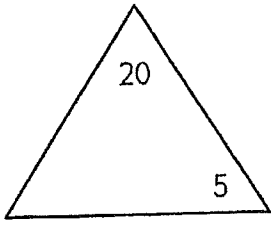
___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

c



___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

NAME _____ DATE _____

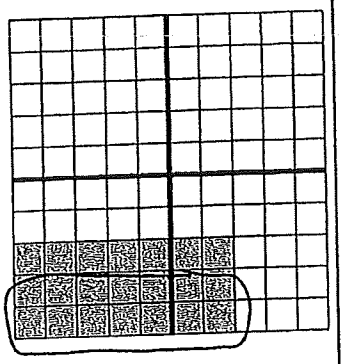
Multiplication Arrays

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

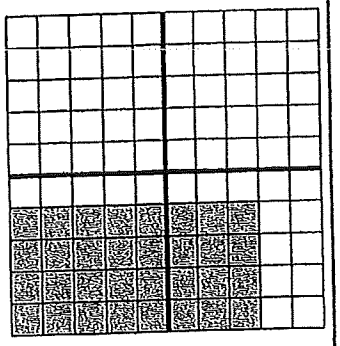
2 Use the array to show how you could solve each fact.

example 3 × 7 = 21

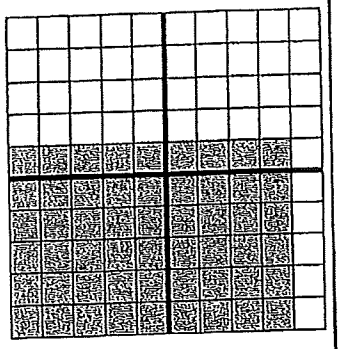


2 × 7 = 14
14 + 7 = 21

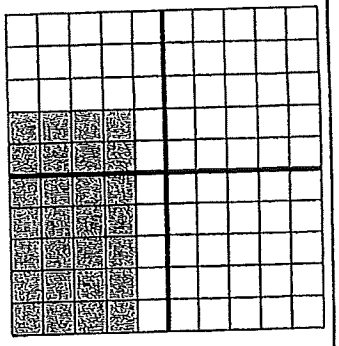
a 4 × 8 = _____



b 6 × 9 = _____



c 7 × 4 = _____



NAME _____ DATE _____

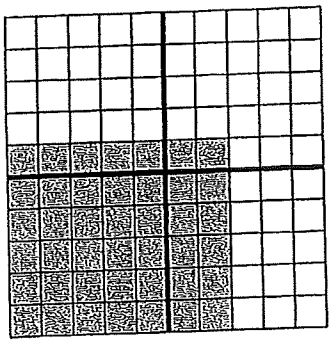
Missing Numbers & Fact Families

1 Fill in the missing numbers below.

$2 \times \square = 12$	$\square \times 3 = 27$	$7 \times \square = 14$	$\square \times 3 = 30$	$\square \times 2 = 10$	$10 \times \square = 0$
$4 \times 3 = \square$	$10 \times \square = 70$	$4 \times 5 = \square$	$7 \times 3 = \square$	$6 \times \square = 18$	$\square \times 6 = 30$

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



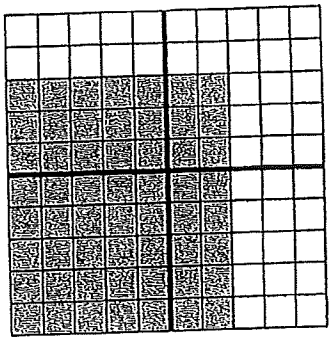
___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

b



___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

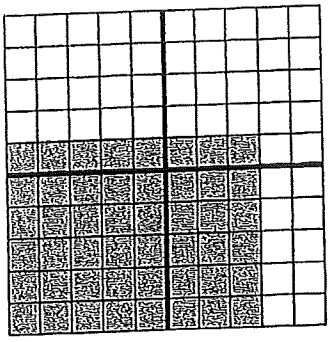
___ ÷ ___ = ___

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



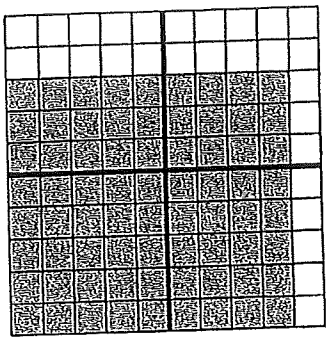
___ × ___ = ___

___ × ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

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 _____

Round, Estimate & Find the Sum

Before you start adding numbers, it is a good idea to estimate what their sum will be. That way, you can tell if your final answer is reasonable. Round each pair of numbers to the nearest ten and then add the rounded numbers to estimate the sum. Then use the standard algorithm to find the exact sum.

Numbers to Add	Round and Add	Estimated Sum	Exact Sum (use the algorithm)
ex 348 + 173	1 350 +170 520	The sum will be about 520.	11 348 + 173 521
1 267 + 338		The sum will be about _____.	267 + 338
2 438 + 583		The sum will be about _____.	438 + 583
3 842 + 159		The sum will be about _____.	842 + 159

NAME _____ DATE _____

Place Value Four-Digit Numbers

1 Complete each equation by writing each number in standard form.

example 8,000 + 20 + 6 = 8,026

a 4,000 + 800 + 30 + 1 = _____

b 9,000 + 400 + 60 + 2 = _____

c _____ = 7,000 + 60 + 2

d 5,000 + 300 + 80 = _____

e _____ = 2,000 + 100 + 4

2 Fill in the missing numbers or words.

Numbers	Words
ex a 5,629	five thousand six hundred twenty-nine
ex b 3,082	three thousand eighty-two
a	two thousand twelve
b	eight thousand five hundred sixty-seven
c 6,032	
d 1,583	

3 Use your estimation skills to answer each question *yes* or *no* without adding or subtracting to find an exact answer.

a The Lighting Bolts need 200 points to make it to the next round of the basketball tournament. So far, they have 154 points. If they score 37 more points by the end of the game, will they make it to the next round?

b Simon has $300 to spend. Can he afford to buy a bike for $150, safety lights for $34, and a good helment for $56?

NAME _____ DATE _____

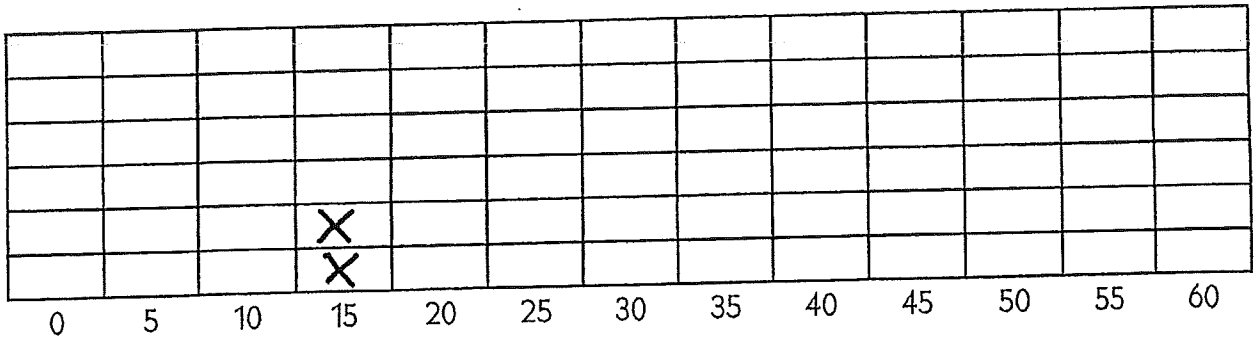
Too Much Homework?

Mrs. Flowers' fourth graders complained that they were spending too much time on their homework, so she asked them to collect information about how many minutes they spent on their homework each night. The table below shows the results.

Time Spent Each Night (minutes)	15	20	25	30	35	40	45	50	55	60
Number of Students	2	3	1	5	3	3	2			1

1 Use the information from the table to complete the line plot below.

Minutes Spent on Homework Each Night



2 What does each X stand for on the line plot?

3 How many students said they spend 40 minutes on their homework each night?

4 Mrs. Flowers says she thinks her students should spend between 30 and 40 minutes on homework each night. Do you think she is giving her students the right amount of homework? Use information from the line plot and table to back up your answer.

NAME _____ DATE _____

More Division & Fractions

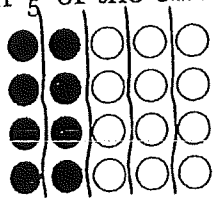
1 Complete the division facts. They may help you with the next problem.

a $20 \div 5 =$ _____ **b** $20 \div 10 =$ _____ **c** $18 \div 2 =$ _____

d $18 \div 3 =$ _____ **e** $18 \div 6 =$ _____ **f** $18 \div 9 =$ _____

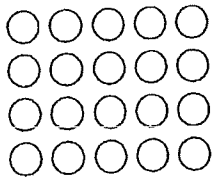
2 Divide each set into equal groups. Shade in some circles to show each fraction. (Hint: The denominator (bottom number) shows how many equal groups. The division problems above will help you think about how many circles should be in each equal group.)

ex Shade in $\frac{2}{5}$ of the circles.

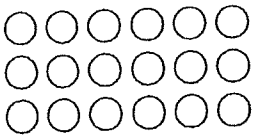


5 equal groups. 2 groups are shaded in.

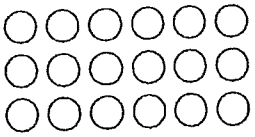
a Shade in $\frac{4}{10}$ of the circles.



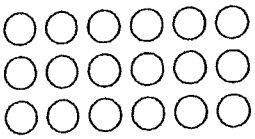
b Shade in $\frac{3}{6}$ of the circles.



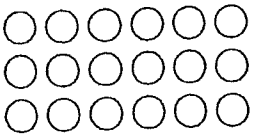
c Shade in $\frac{5}{6}$ of the circles.



d Shade in $\frac{2}{3}$ of the circles.



e Shade in $\frac{8}{9}$ of the circles.



3 Which fraction or fractions above are less than $\frac{1}{2}$?

4 Write <, >, or = to compare two fractions. Use the pictures above to help.

a $\frac{2}{5}$ $\frac{2}{3}$	**b** $\frac{5}{6}$ $\frac{8}{9}$	**c** $\frac{3}{6}$ $\frac{2}{3}$

NAME _____ DATE _____

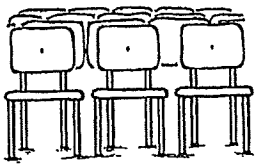
Money & Chair Problems

1 Jasmine's neighbor paid her $32 for helping with some yard work. Jasmine gave her brother $8 because he helped her with some of the work. Then she went shopping with the rest of the money. She bought 3 books that were $6 each and a bottle of juice for $1.89. How much money did she have left? Show all your work.

2a The third graders are putting on a play for the fourth and fifth graders. They need to set up chairs in the gym for the fourth and fifth graders to sit on. There are 86 fourth graders, 79 fifth graders, 3 fourth grade teachers, and 3 fifth grade teachers. How many chairs will the third graders need to set up? Show all your work.

CHALLENGE

b The third graders can put no more than 20 chairs in a row. How many rows of chairs will they need? Show all your work.



NAME _____ DATE _____

Larger Multiplication

You can break a two-digit number into tens and ones to multiply it by another number. Use this method to solve the multiplication problems below.

Problem	Break larger numbers into tens and ones. Then multiply.	Add the two products.	Your Answer
ex 16 × 4	10 × 4 = 40 and 6 × 4 = 24 Break 16 into 10 and 6. Multiply both by 4	40 + 24 = 64	16 × 4 = 64
1 14 × 4			14 × 4
2 13 × 6			13 × 6
3 15 × 7			15 × 7
4 18 × 8			18 × 8

Multiplication Tables - 2 to 12 practice

Grade 4 Multiplication Worksheet

Find the product.

1. $8 \times 12 =$ _____
2. $4 \times 10 =$ _____
3. $8 \times 8 =$ _____
4. $7 \times 11 =$ _____
5. $6 \times 3 =$ _____
6. $6 \times 9 =$ _____
7. $6 \times 11 =$ _____
8. $3 \times 10 =$ _____
9. $8 \times 10 =$ _____
10. $9 \times 8 =$ _____
11. $4 \times 7 =$ _____
12. $2 \times 10 =$ _____
13. $7 \times 2 =$ _____
14. $5 \times 12 =$ _____
15. $9 \times 7 =$ _____
16. $9 \times 10 =$ _____
17. $11 \times 9 =$ _____
18. $2 \times 6 =$ _____
19. $2 \times 4 =$ _____
20. $8 \times 11 =$ _____
21. $12 \times 5 =$ _____
22. $4 \times 11 =$ _____
23. $10 \times 12 =$ _____
24. $9 \times 2 =$ _____
25. $10 \times 2 =$ _____
26. $6 \times 5 =$ _____
27. $11 \times 11 =$ _____

Multiplication Tables - 2 to 12 practice

Find the product.

1. $7 \times 5 =$ _____
2. $3 \times 7 =$ _____
3. $2 \times 10 =$ _____
4. $2 \times 11 =$ _____
5. $5 \times 2 =$ _____
6. $5 \times 10 =$ _____
7. $6 \times 6 =$ _____
8. $3 \times 2 =$ _____
9. $12 \times 5 =$ _____
10. $2 \times 9 =$ _____
11. $9 \times 10 =$ _____
12. $12 \times 3 =$ _____
13. $8 \times 9 =$ _____
14. $6 \times 2 =$ _____
15. $4 \times 7 =$ _____
16. $12 \times 11 =$ _____
17. $10 \times 5 =$ _____
18. $5 \times 3 =$ _____
19. $5 \times 6 =$ _____
20. $4 \times 6 =$ _____
21. $4 \times 4 =$ _____
22. $10 \times 7 =$ _____
23. $12 \times 8 =$ _____
24. $4 \times 2 =$ _____
25. $7 \times 10 =$ _____
26. $11 \times 9 =$ _____
27. $2 \times 3 =$ _____

Multiply in columns - 1 digit by 2 digit

Find the product.

1. $44 \times 4 =$ _____

2. $35 \times 8 =$ _____

3. $91 \times 2 =$ _____

4. $19 \times 8 =$ _____

5. $77 \times 2 =$ _____

6. $33 \times 4 =$ _____

7. $34 \times 4 =$ _____

8. $98 \times 5 =$ _____

9. $50 \times 7 =$ _____

10. $17 \times 7 =$ _____

11. $52 \times 1 =$ _____

12. $63 \times 8 =$ _____

13. $18 \times 6 =$ _____

14. $28 \times 5 =$ _____

15. $51 \times 3 =$ _____

Complete the following problems:

1. 6 x 7 = _____
2. 5 x 4= _____
3. 3x 7= _____
4. 8x 2= _____
5. 2 x 3 =_____
6. 3 x 4 =_____
7. 6 x 4=_____
8. 7 x 7=_____
9. 2 x 9=_____
10. 6 x 6= _____
11. 3 x 8=_____
12. 2 x 12=_____
13. 1 x 6=_____
14. 0 x 9=_____
15. 9 x 3=_____
16. 5 x 9=_____
17. 4 x 7=_____
18. 3 x 2= _____
19. 7x 2=_____
20. 5 x 8= _____

NAME _____ DATE _____

Division & Fractions

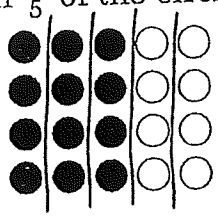
1 Complete the division facts. They may help you with the next problem.

a $20 \div 5 =$ _____ **b** $20 \div 10 =$ _____ **c** $18 \div 2 =$ _____

d $18 \div 3 =$ _____ **e** $18 \div 6 =$ _____ **f** $18 \div 9 =$ _____

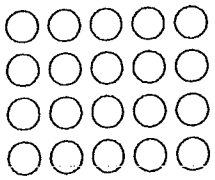
2 Divide each set into equal groups. Shade in some circles as directed.

ex Shade in $\frac{3}{5}$ of the circles.

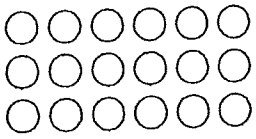


5 equal groups, 3 groups are shaded in.

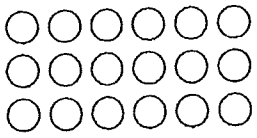
a Shade in $\frac{2}{10}$ of the circles. Hint: *Divide the set into 10 equal groups.*



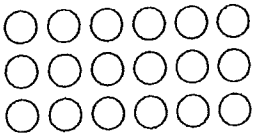
b Shade in $\frac{1}{2}$ of the circles. Hint: *Divide the set into 2 equal groups.*



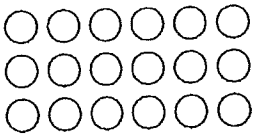
c Shade in $\frac{2}{6}$ of the circles. Hint: *Divide the set into 6 equal groups.*



d Shade in $\frac{1}{3}$ of the circles. Hint: *Divide the set into 3 equal groups.*



e Shade in $\frac{4}{9}$ of the circles. Hint: *Divide the set into 9 equal groups.*



3a Find two fractions above that are equal. Write them here:

b How do you know these fractions are equal?