DIVISION

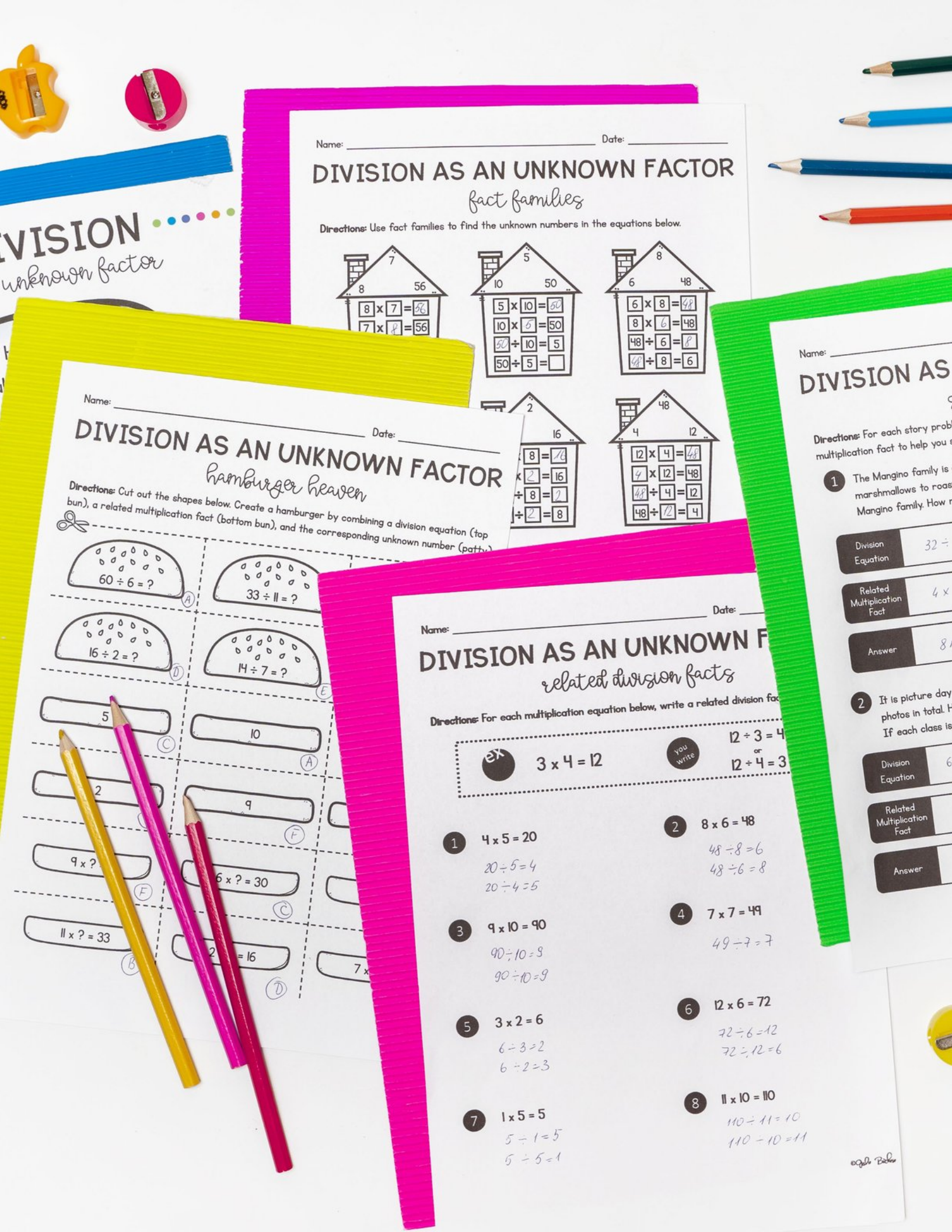
AS AN UNKNOWN FACTOR

3rd Grade



Printable & Google Slides


Date:
AS AN UNKNOWN FACTOR
related division facts
12 ÷ 3 = 4
DIVISION
as an unknown Factor
Date:
ON AS AN UNKNOWN FACTOR
story problems
For each story problem below, write a division equation. Then, write a related
ion fact to help you solve.
The Mangino family is going camping. They have a bag of 32
marshmallows to roast on the campfire, and there are 4 people in the
Mangino family. How many marshmallows will each person get?
Division Equation
32 ÷ 4 = ?
Related Multiplication Fact
4 x 8 = 32
Answer
8 marshm
picture day at Memorial
photos in total. He took one ph
If each class is the same size
Division Equation
60 ÷ 5 = ?
Related Multiplication Fact
5 x 12 = 60
Answer
12 studen
MYSTERY SHAPE
Directions: For each division equation, use a related multiplication fact to find the unknown number. Write the multiplication fact and the quotient. Then, drag the pink squares to fill all squares with that number in the grid. What is the mystery shape?
1 48 ÷ 6 =
2 25 ÷ 5 =
3 14 ÷ 2 =
4 28 ÷ 7 =
5 72 ÷ 12 =
6 99 ÷ 9 =



VISION
unknown factor

Name: _____ Date: _____

DIVISION AS AN UNKNOWN FACTOR

fact families

Directions: Use fact families to find the unknown numbers in the equations below.

7 | 8 | 56
8 x 7 = 56
7 x 8 = 56

5 | 10 | 50
5 x 10 = 50
10 x 5 = 50
50 ÷ 10 = 5
50 ÷ 5 = ☐

8 | 6 | 48
6 x 8 = 48
8 x 6 = 48
48 ÷ 6 = 8
48 ÷ 8 = 6

2 | 16
8 = 16
x 2 = 16
÷ 8 = 2
÷ 2 = 8

48 | 4 | 12
12 x 4 = 48
4 x 12 = 48
48 ÷ 4 = 12
48 ÷ 12 = 4

Name: _____ Date: _____

DIVISION AS AN UNKNOWN FACTOR

hamburger heaven

Directions: Cut out the shapes below. Create a hamburger by combining a division equation (top bun), a related multiplication fact (bottom bun), and the corresponding unknown number (patty).

60 ÷ 6 = ? (A)
33 ÷ 11 = ?
16 ÷ 2 = ? (D)
14 ÷ 7 = ? (E)

5 (C)
10 (A)
2
9 (F)
9 x ? (F)
6 x ? = 30 (C)
11 x ? = 33 (B)
= 16 (D)
7 x

Name: _____ Date: _____

DIVISION AS AN UNKNOWN F

related division facts

Directions: For each multiplication equation below, write a related division fac

ex 3 x 4 = 12 — you write: 12 ÷ 3 = 4 or 12 ÷ 4 = 3

1. 4 x 5 = 20
   20 ÷ 5 = 4
   20 ÷ 4 = 5
2. 8 x 6 = 48
   48 ÷ 8 = 6
   48 ÷ 6 = 8
3. 9 x 10 = 90
   90 ÷ 10 = 9
   90 ÷ 10 = 9
4. 7 x 7 = 49
   49 ÷ 7 = 7
5. 3 x 2 = 6
   6 ÷ 3 = 2
   6 ÷ 2 = 3
6. 12 x 6 = 72
   72 ÷ 6 = 12
   72 ÷ 12 = 6
7. 1 x 5 = 5
   5 ÷ 1 = 5
   5 ÷ 5 = 1
8. 11 x 10 = 110
   110 ÷ 11 = 10
   110 ÷ 10 = 11

Name: _____

DIVISION AS

Directions: For each story prob
multiplication fact to help you

1. The Mangino family is
   marshmallows to roas
   Mangino family. How

Division Equation	32 ÷
Related Multiplication Fact	4 x
Answer	8

2. It is picture day
   photos in total. H
   If each class is

Division Equation	6
Related Multiplication Fact	
Answer	


STORY PROBLEMS
Directions: For each story problem, write a division equation. Then, write a related multiplication fact to help you solve.
1 The Mangino family is going camping. They have a bag of 32 marshmallows to roast on the campfire, and there are 4 people in the Mangino family. How many marshmallows will each person get?
Division Equation
÷
= ?
Related Multiplication Fact
x
=
Answer
DIVISION
Name:
Directions: For each story
multiplication fact to help
1 The Mangino family
marshmallows to ro
Mangino family. How
Division Equation
32 ÷
Related Multiplication Fact
4 x 8
Answer
8 mars
2 It is picture day at Mem
photos in total. He took o
If each class is the same
Division Equation
60 ÷ 5 = ?
Related Multiplication Fact
5 x 12 = 60
Answer
12 studen
AN UNKNOWN FAC
ct families
e unknown numbers in the equations below.
Date:
81 ÷ 9 = ?
8
3
6 x ? = 60
7 x ? = 14


Name: Date:
DIVISION
Directions: Cut out the sh
bun), a related multiplica
60 ÷ 6 = ?
16 ÷ 2 = ?
5
2
9 x ? =
11 x ? =
Name: Date:
DIVISION AS
relat
Directions: For each multiplication
ex 3 x 4 =
1 4 x 5 = 20
20 ÷ 5 = 4
20 ÷ 4 = 5
3 9 x 10 = 90
90 ÷ 10 = 9
90 ÷ 10 = 9
5 3 x 2 = 6
6 ÷ 3 = 2
6 ÷ 2 = 3
7 1 x 5 = 5
5 ÷ 1 = 5
5 ÷ 5 = 1
Name:
DIVISION AS
Directions: Use fact families to
7 8 56
8 x 7 = 56
7 x 8 = 56
56 ÷ 8 = 7
56 ÷ 7 = 8
9 4 36
9 x 4 = 36
4 x 9 = 36
36 ÷ 9 = 4
36 ÷ 4 = 9
6 3 18
6 x 3 = 18
6 x 3 = 18
18 ÷ 3 = 6
18 ÷ 6 =
Name:
DIVISION AS
Directions: For each story problem b
multiplication fact to help you solve.
1 The Mangino family is going ca
marshmallows to roast on the
Mangino family. How many mar
Division Equation 32 ÷ 4 = ?
Related Multiplication Fact 4 x 8 = 32
Answer 8 marshmallo
2 It is picture day at Memorial Elemen
photos in total. He took one photo of
If each class is the same size, how m
Division Equation 60 ÷ 5 = ?
Related Multiplication Fact 5 x 12 = 60
Answer 12 students
DIVIS
as an unkno
How car
multiplicatio
solve division
I see...
I think...
I do...

DIVISION
AS AN UNKNOWN FACTOR

3rd grade

Table of Contents

1. Anchor Chart (1 page)
2. Fact Families (2 pages)
3. Related Division Facts (2 pages)
4. Related Multiplication Facts (4 pages)
5. Story Problems (6 pages)
6. Review Games and Activities (3 pages)
7. Test (3 pages)



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DIVISION

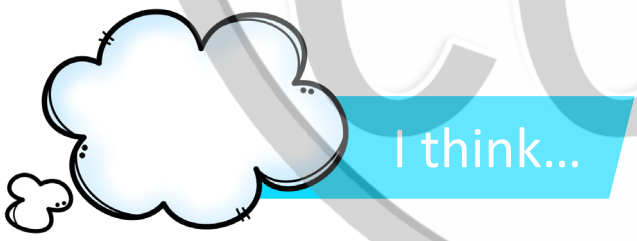
as an unknown factor

How can I use multiplication facts to solve division equations?



I see...

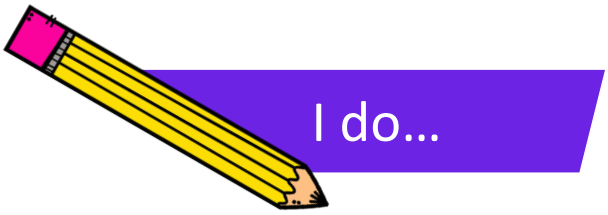
$54 \div 9 = ?$



I think...

$9 \times ? = 54$

9 times what number is equal to 54?



I do...

$9 \times 6 = 54$

so

$54 \div 9 = 6$

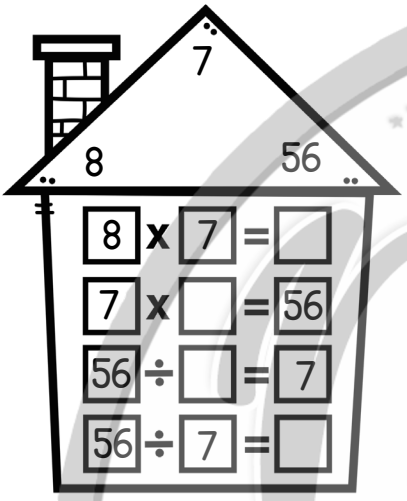
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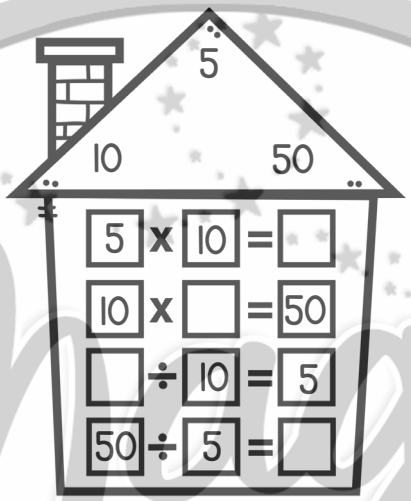
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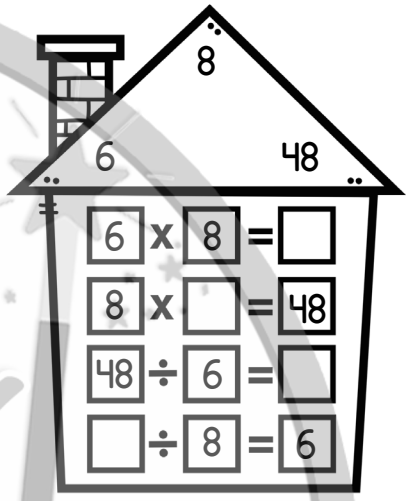
DIVISION AS AN UNKNOWN FACTOR

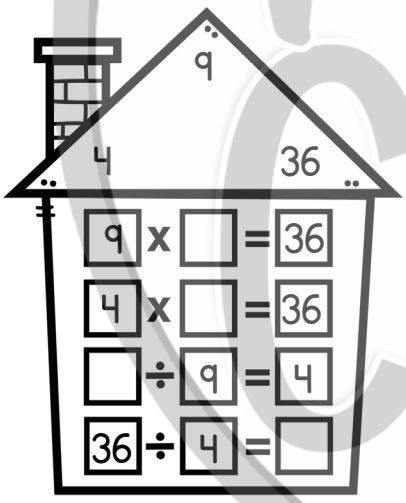
fact families

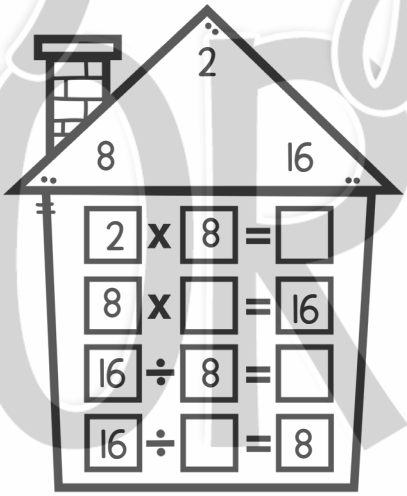
Directions: Use fact families to find the unknown numbers in the equations below.

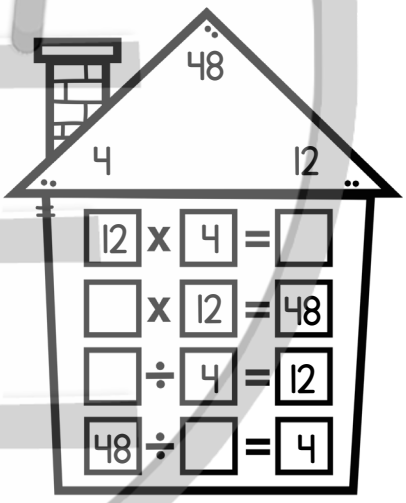


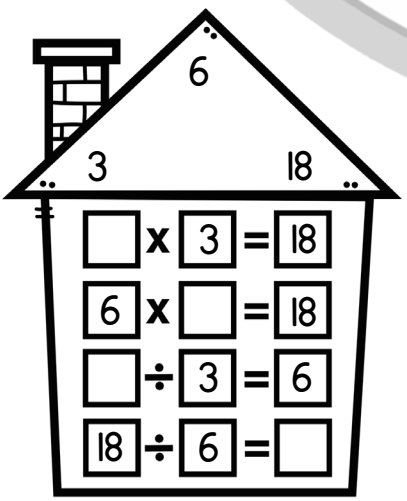


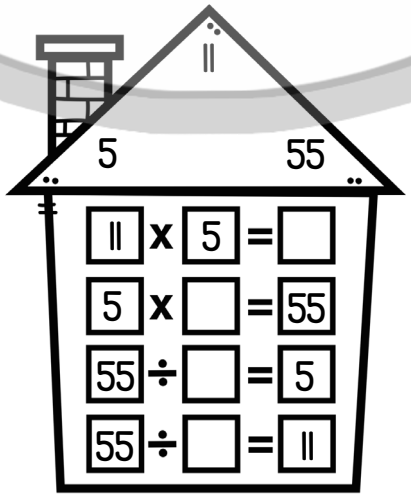


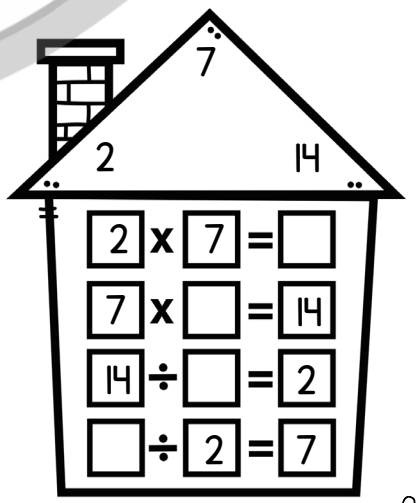












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Name: _____ Date: _____

DIVISION AS AN UNKNOWN FACTOR

Related division facts

Directions: For each multiplication equation below, write a related division fact.

ex $3 \times 4 = 12$ you write $12 \div 3 = 4$ or $12 \div 4 = 3$

1. $4 \times 5 = 20$
2. $8 \times 6 = 48$
3. $9 \times 10 = 90$
4. $7 \times 7 = 49$
5. $3 \times 2 = 6$
6. $12 \times 6 = 72$
7. $1 \times 5 = 5$
8. $11 \times 10 = 110$

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DIVISION AS AN UNKNOWN FACTOR

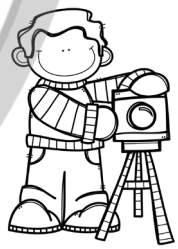
Story problems

Directions: For each story problem below, write a division equation. Then, write a related multiplication fact to help you solve.



1 The Mangino family is going camping. They have a bag of 32 marshmallows to roast on the campfire, and there are 4 people in the Mangino family. How many marshmallows will each person get?

Division Equation	
Related Multiplication Fact	
Answer	



2 It is picture day at Memorial Elementary. The photographer took 60 photos in total. He took one photo of each student in 5 different classes. If each class is the same size, how many students are in each class?

Division Equation	
Related Multiplication Fact	
Answer	

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DIVISION AS AN UNKNOWN FACTOR

memory

Directions: Cut out and shuffle the cards. Place them face down in neat rows. Flip over any two cards, trying to create a match between a division equation and a related multiplication fact. If you get a pair, keep the matching cards. If you do not get a pair, flip the cards back over. Play one of three ways:

Independently: Time yourself. How quickly you can find all the matches?

Collaboratively: Work cooperatively with a partner to see how quickly you can find all the matches together.

Competitively: Take turns with a partner, flipping over two cards per turn. Who can get more matches?

Be sure to pay close attention to the cards the other player turns over!

42 ÷ 6 = ?	5 x 9 = 45	18 ÷ 3 = ?	3 x 6 = 18
8 x 10 = 80	6 x 7 = 42	80 ÷ 8 = ?	27 ÷ 9 = ?
24 ÷ 12 = ?	45 ÷ 5 = ?	12 x 2 = 24	3 x 9 = 27

Mag CORE

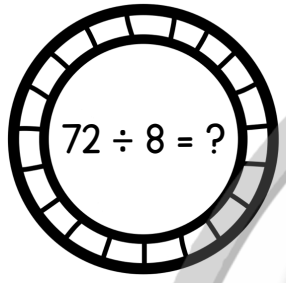
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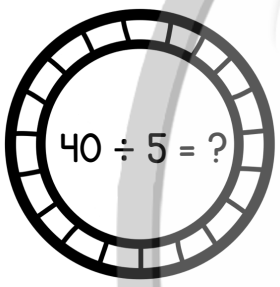
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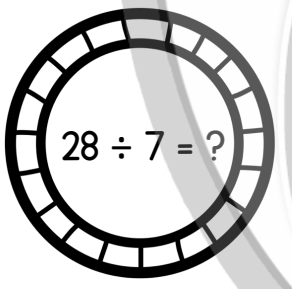
DIVISION AS AN UNKNOWN FACTOR

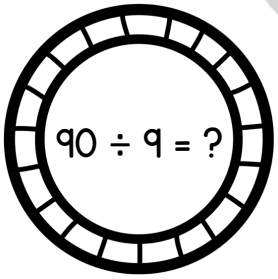
Money in the bank

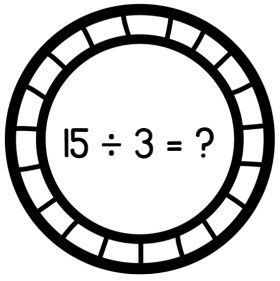
Directions: Draw a line between the division equation on each coin with a related multiplication fact on the dollar bill. Then, draw a line to the piggy bank with the missing number.

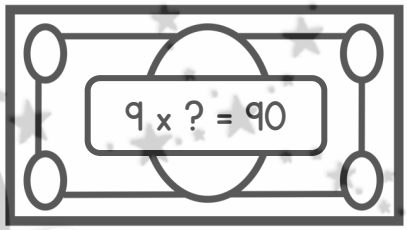


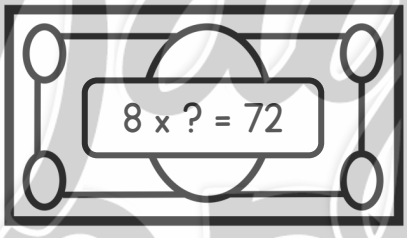


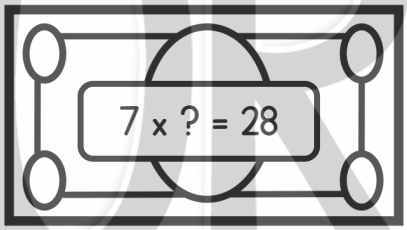


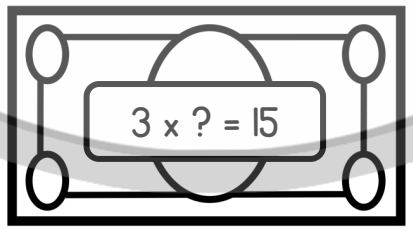


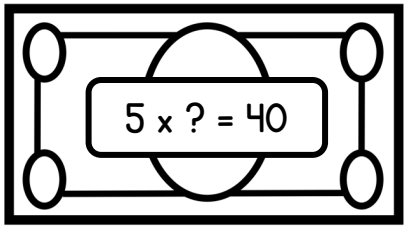


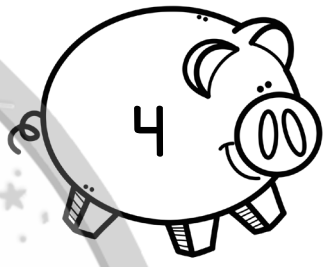


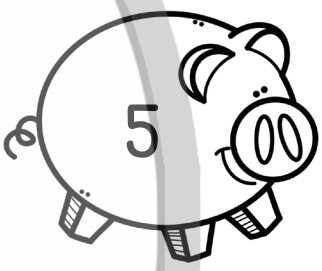


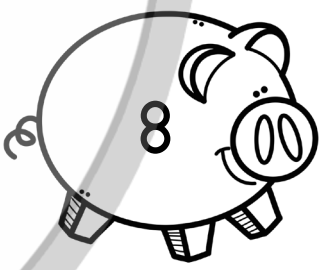


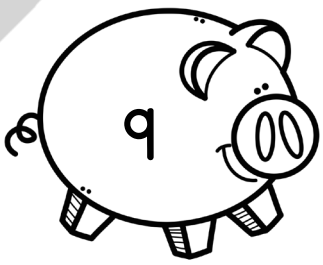


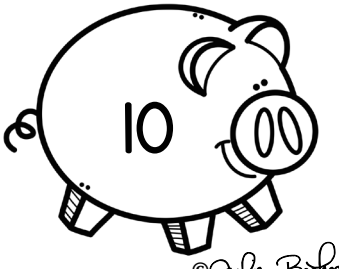












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DIVISION AS AN UNKNOWN FACTOR

Hamburger heaven

Directions: Cut out the shapes below. Create a hamburger by combining a division equation (top bun), a related multiplication fact (bottom bun), and the corresponding unknown number (patty).



60 ÷ 6 = ?

33 ÷ 11 = ?

30 ÷ 6 = ?

16 ÷ 2 = ?

14 ÷ 7 = ?

81 ÷ 9 = ?

5

10

8

2

9

3

9 x ? = 81

6 x ? = 30

6 x ? = 60

11 x ? = 33

2 x ? = 16

7 x ? = 14

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Name: _____ Date: _____

DIVISION AS AN UNKNOWN FACTOR

Mystery shape

Directions: For each division equation, use a related multiplication fact to find the unknown number. Then, on the grid, shade all squares with that number. What is the mystery shape?

1. 48 ÷ 6 = ___
2. 25 ÷ 5 = ___
3. 72 ÷ 12 = ___
4. 14 ÷ 2 = ___
5. 28 ÷ 7 = ___
6. 99 ÷ 9 = ___

2	1	2	10	1	3	0	12	3	1	3	3	12	0	2	9	2	10	0	1
0	9	3	10	9	12	9	12	3	10	12	0	3	1	10	9	3	1	3	1
3	12	9	1	8	7	12	3	0	12	3	9	12	12	5	8	12	3	12	3
12	3	10	5	7	5	4	9	10	3	1	10	3	8	4	7	5	9	2	9
9	12	12	4	11	8	6	11	1	9	0	2	7	6	8	11	4	3	9	3
12	3	6	5	7	11	8	7	5	3	2	8	11	5	4	8	7	8	10	3
10	7	11	7	4	8	6	11	8	7	5	11	6	5	4	4	7	4	11	1
3	11	7	6	11	6	11	5	4	8	7	8	11	5	7	11	8	7	5	2
12	4	5	11	5	4	8	11	6	5	11	6	5	4	6	7	11	6	6	12
2	7	11	8	11	8	11	5	4	11	8	4	11	8	11	8	5	5	4	3
1	10	8	4	5	11	4	11	8	4	6	6	8	11	6	4	6	7	10	2
3	12	0	6	6	8	6	6	4	5	11	8	11	6	5	7	7	12	3	0
0	3	12	3	4	11	5	4	6	7	4	11	8	4	11	6	0	2	12	3
10	12	3	1	0	5	4	6	6	5	5	8	7	4	8	12	12	3	10	12
1	1	10	12	0	3	6	7	4	4	7	7	6	4	3	9	1	3	12	1
2	12	3	3	12	2	12	11	6	4	8	11	5	3	12	0	2	0	9	3
3	3	9	12	9	10	3	10	5	11	7	4	12	2	1	12	3	9	9	1
3	12	10	3	12	3	9	12	2	8	5	9	12	10	12	3	9	10	3	9
0	9	2	12	10	0	3	1	10	3	1	9	3	9	3	12	3	12	10	10
3	10	3	0	9	2	0	3	1	2	3	3	12	0	12	3	9	0	9	3

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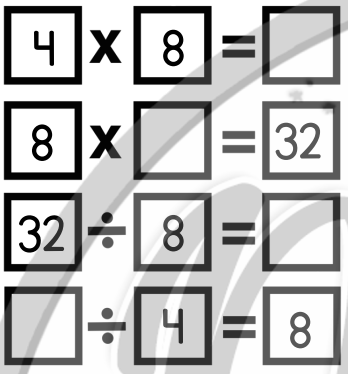
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DIVISION AS AN UNKNOWN FACTOR

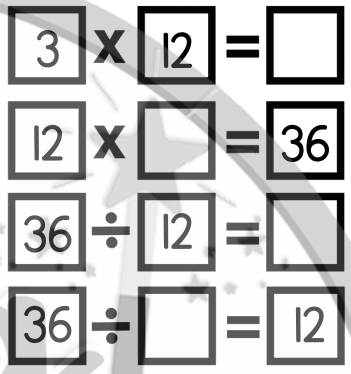
test

Directions: Complete the fact families.

1



2



Directions: For each multiplication equation below, write a related division fact.

3 6 x 4 = 24

4 9 x 7 = 63

5 5 x 11 = 55

6 2 x 10 = 20

7 If you know that 312 ÷ 26 = 12, explain how you also know that 26 x 12 = 312.

©Julie Bacheor

Directions: For each division equation, write a related multiplication fact that will help you solve it. Write the missing quotient.

8 $16 \div 4 = ___$

9 $49 \div 7 = ___$

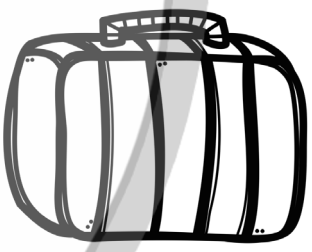
10 $60 \div 5 = ___$

11 $40 \div 8 = ___$

12 $18 \div 6 = ___$

13 $54 \div 9 = ___$

14 Kimberly is packing for a trip. She has five suitcases, and they weigh a total of 45 pounds. If each suitcase weighs the same amount, how many pounds does each suitcase weigh?



Division Equation	
Related Multiplication Fact	
Answer	

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15 On Saturday, there was a soccer tournament. There were 110 soccer players at the tournament, and each team had 11 players. How many teams participated in the tournament?



Division Equation	
Related Multiplication Fact	
Answer	

16 Mikhail and Caroline are trying to solve the division equation 21 ÷ 7. Mikhail thinks the related multiplication fact is 3 x 7 = 21. Caroline thinks you need to use the multiplication fact 7 x 3 = 21. Who is correct? Explain.

17 Use the numbers below to create a division equation and a related multiplication fact. You will use each number once in each equation.

8	56	7

_____ ÷ _____ = _____ _____ x _____ = _____

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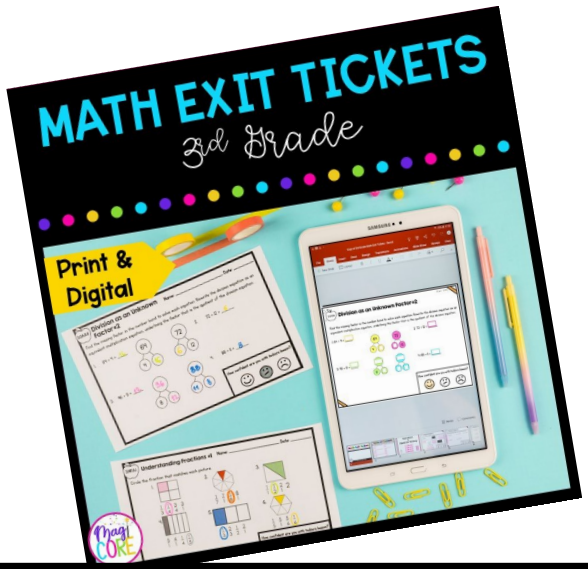
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