

DIVIDING by HALF

WORK BOOKLET

TRIANGLE FACT FAMILY

\triangle

9 2

$X \div$

\times $=$

\times $=$

\div $=$

\div $=$

16

8

$X \div$

\times $=$

\times $=$

\div $=$

\div $=$

\triangle

6 2

$X \div$

\times $=$

\times $=$

\div $=$

\div $=$

\triangle

7 2

$X \div$

\times $=$

\times $=$

\div $=$

\div $=$

Division Vocabulary

dividend

divisor

quotient

$$12 \div 6 = 2$$

2

quotient

divisor

6

12

dividend

dividend

$$\frac{12}{6} = 2$$

quotient

divisor

6

DIVISION

$$14 \div 7 = 2$$



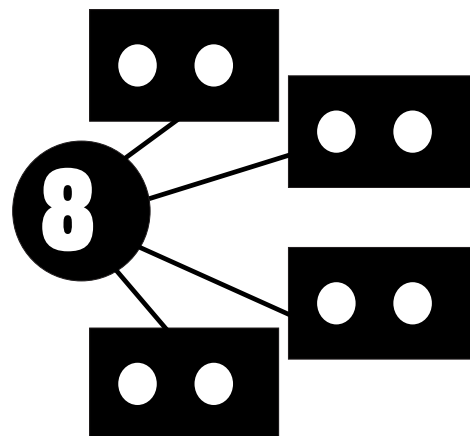
DIVIDEND

DIVISOR

QUOTIENT

Division Strategies:

PARTITION

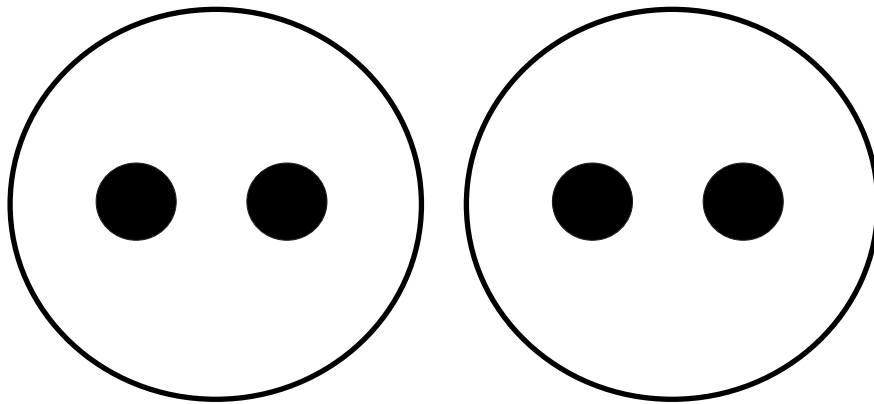


$$8 \div 4 = 2$$

STRATEGY POSTER

When dividing by **HALF**,
it's always 2

$$4 \div 2 = 2$$



**Hint: It's always 2 when you divide a
number in half.**

DIVISION

$$14 \div 7 = 2$$



DIVIDEND

DIVISOR

QUOTIENT

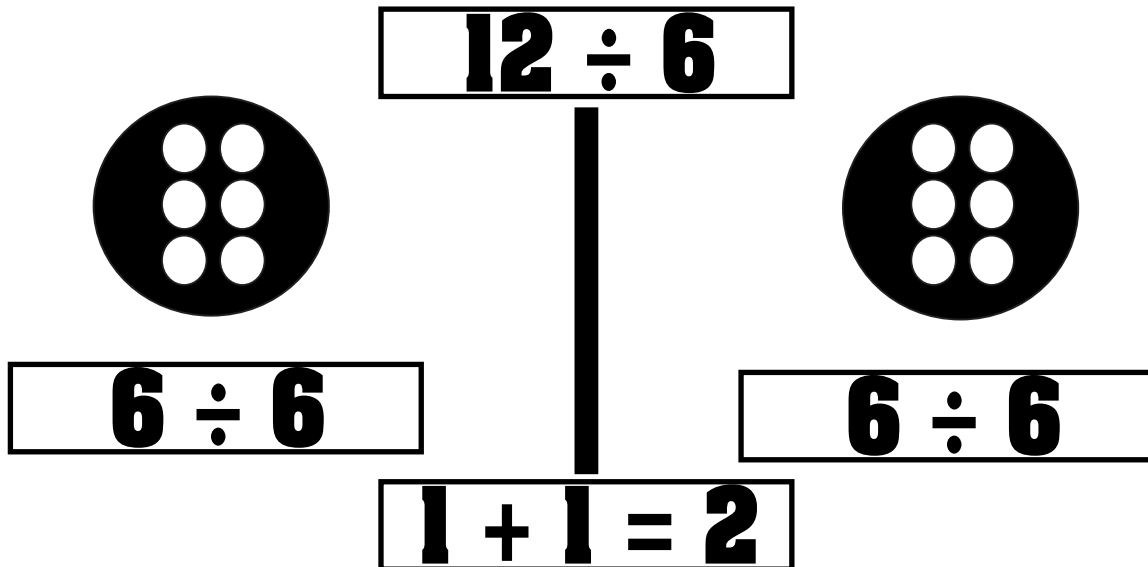


VOCABULARY

DISTRIBUTIVE PROPERTY

The bakery made 12 muffins. They put 6 in a box. How many boxes did they use?

$$12 \div 6 = (6 \div 6) + (6 \div 6) = 1 + 1 = 2$$



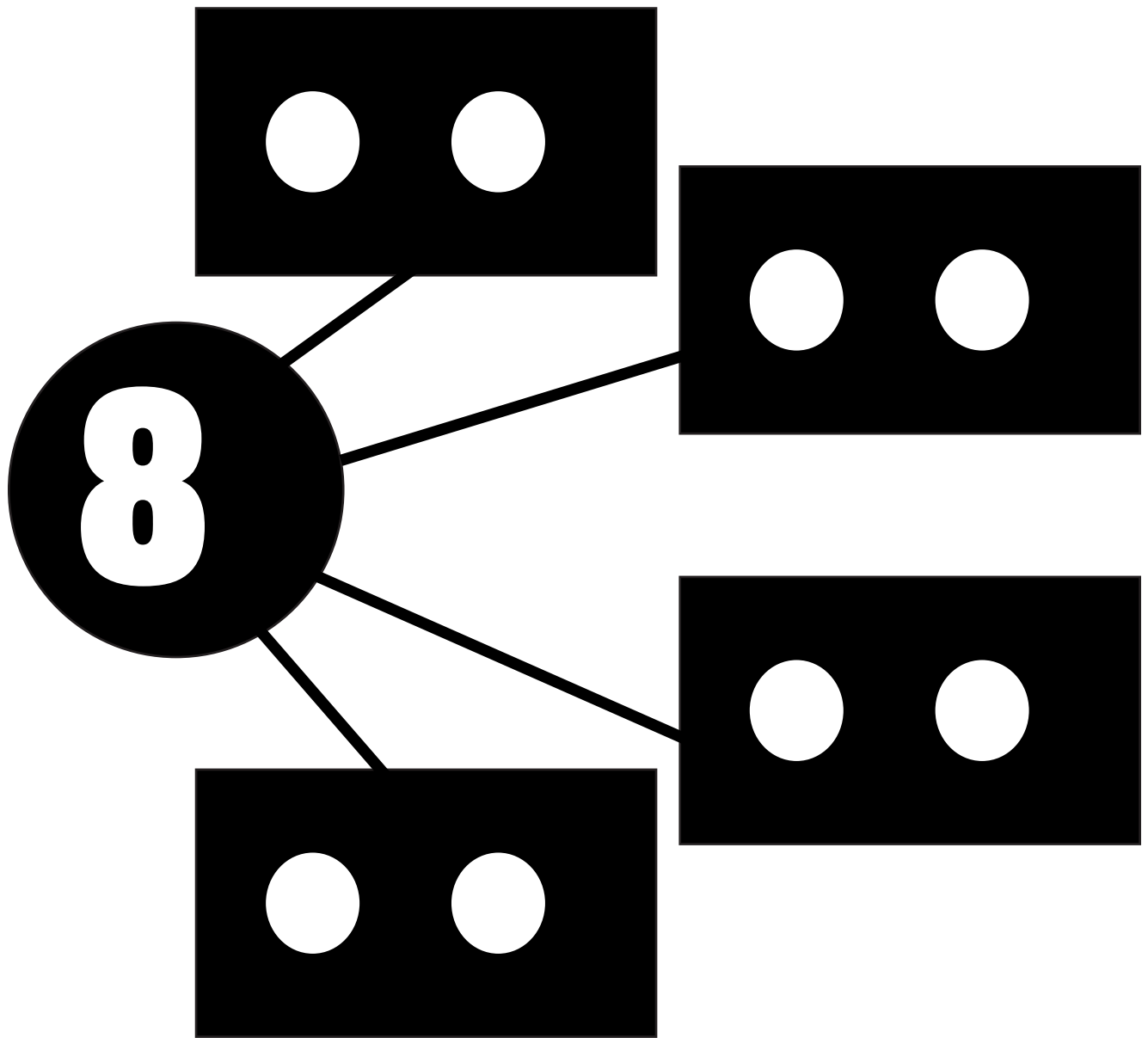
MODEL THE FACT

The bakery made 24 muffins. They put 12 in a box. How many boxes did they use?

$$24 \div 12 = (12 \div 12) + (12 \div 12) = 1 + 1 = 2$$

Division Strategies:

PARTITION



$$8 \div 4 = 2$$

Division Strategies:

PARTITION

$$4 \div 2 = 2$$

$$6 \div 3 = 2$$

$$8 \div 4 = 2$$

Division Strategies:

PARTITION

$$10 \div 5 = 2$$

$$12 \div 6 = 2$$

$$14 \div 7 = 2$$

Division Strategies:

PARTITION

$$16 \div 8 = 2$$

$$18 \div 9 = 2$$

$$20 \div 10 = 2$$

Division Strategies:

PARTITION

FREE CHOICE

FREE CHOICE

FREE CHOICE

Division Strategies:

RELATED FACT

$$18 \div 9 = \underline{\quad}$$

think

$$9 \times \underline{\quad} = 18$$

$$6 \div 3 = \underline{\quad}$$

think

$$3 \times \underline{\quad} = 6$$

$$14 \div 7 = \underline{\quad}$$

think

$$7 \times \underline{\quad} = 14$$

$$10 \div 5 = \underline{\quad}$$

think

$$5 \times \underline{\quad} = 10$$

Division Strategies:

RELATED FACT

$$4 \div 2 = \underline{\quad}$$

think

$$2 \times \underline{\quad} = 4$$

$$12 \div 6 = \underline{\quad}$$

think

$$6 \times \underline{\quad} = 12$$

$$16 \div 8 = \underline{\quad}$$

think

$$8 \times \underline{\quad} = 16$$

$$8 \div 4 = \underline{\quad}$$

think

$$4 \times \underline{\quad} = 8$$

Division Strategies:

RELATED FACT

$$20 \div 10 = \underline{\quad}$$

think

$$10 \times \underline{\quad} = 20$$

$$\underline{\quad} \div \underline{\quad} = \underline{\quad}$$

think

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \div \underline{\quad} = \underline{\quad}$$

think

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \div \underline{\quad} = \underline{\quad}$$

think

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Division Strategies: **REPEATED SUBTRACTION**

$$16 \div 8 = ?$$

$$\begin{array}{r} 16 - 8 = 8 \\ 8 - 8 = 0 \end{array}$$

$$16 \div 8 = \boxed{2}$$

Division Strategies:

REPEATED SUBTRACTION

$$10 \div 5 = ?$$

$$10 - \underline{\quad} = 5$$

$$\underline{\quad} - 5 = 0$$

$$10 \div 5 = \square$$

Division Strategies:

REPEATED SUBTRACTION

$$6 \div 3 = ?$$

$$6 - \underline{\quad} = 3$$

$$\underline{\quad} - 3 = 0$$

$$6 \div 3 = \square$$

Division Strategies:

NUMBER LINES

THERE ARE 12 COOKIES AND YOU PUT 6 IN A BAG. HOW MANY BAGS DO YOU HAVE?

$$12 \div 6 = 2$$



HOW MANY JUMPS UNTIL YOU GET TO ZERO?

THE FIRST NUMBER IS HOW MANY COOKIES (DIVIDEND). THE SECOND NUMBER IS HOW MANY ARE IN A BAG (DIVISOR). THE QUESTION IS HOW MANY BAGS DO YOU NEED (QUOTIENT)?

SOLVE THE PROBLEM ON THE NUMBER LINE.
HOW MANY JUMPS UNTIL YOU GET TO ZERO?

$$4 \div 2$$



$$6 \div 3$$



$$8 \div 4$$



$$10 \div 5$$



Division Strategies:

NUMBER LINES

$12 \div 6$



$14 \div 7$



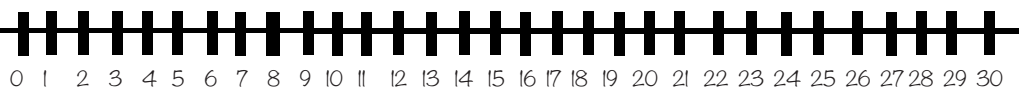
$16 \div 8$



$18 \div 9$



$20 \div 10$



Division Vocabulary

dividend

divisor

quotient

$$12 \div 6 = 2$$

divisor

6

12

2

quotient

dividend

dividend

12

= 2

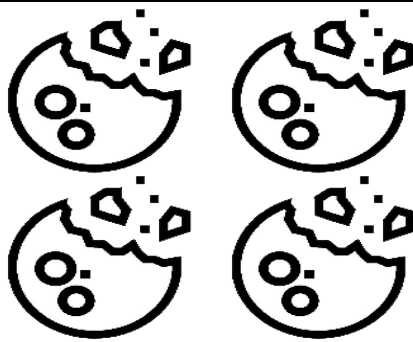
quotient

divisor

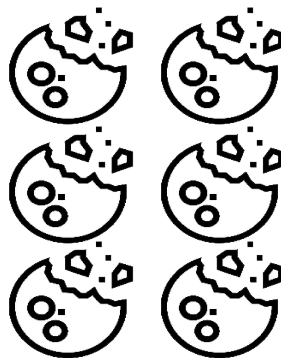
6

Array Flashcards

USE THE MODEL TO SOLVE



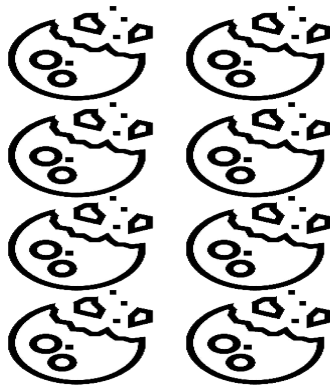
$$4 \div 2 = \underline{\quad}$$



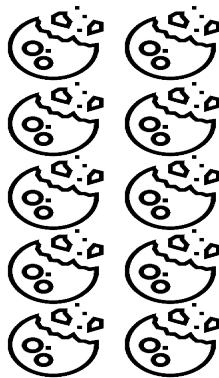
$$6 \div 3 = \underline{\quad}$$

Array Flashcards

USE THE MODEL TO SOLVE



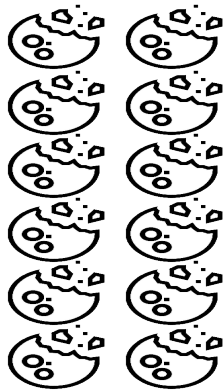
$$8 \div 4 = \underline{\quad}$$



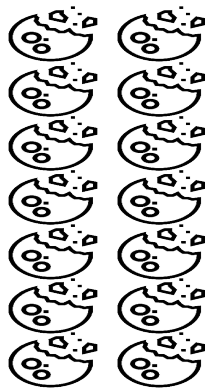
$$10 \div 5 = \underline{\quad}$$

Array Flashcards

USE THE MODEL TO SOLVE



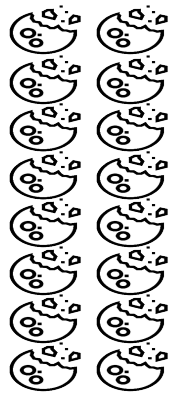
$$12 \div 6 = \underline{\quad}$$



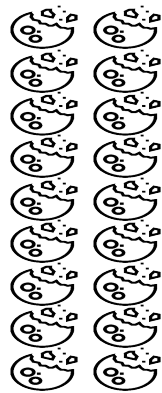
$$14 \div 7 = \underline{\quad}$$

Array Flashcards

USE THE MODEL TO SOLVE



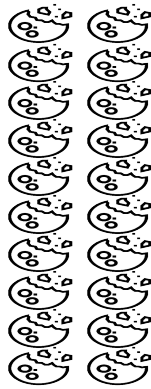
$$16 \div 8 = \underline{\quad}$$



$$18 \div 9 = \underline{\quad}$$

Array Flashcards

USE THE MODEL TO SOLVE



$$20 \div 10 = \underline{\quad}$$

FREE CHOICE

Array Flashcards

**WRITE AN EQUATION THAT
MATCHES THE ARRAY.**

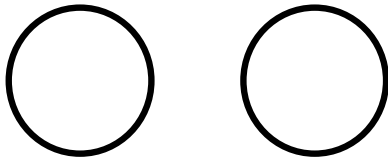
FREE CHOICE

FREE CHOICE

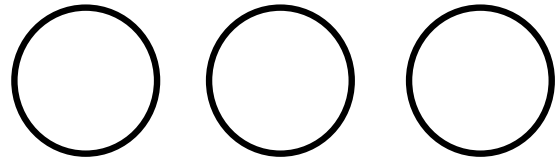
Equal Group Flashcards

MAKE YOUR OWN EQUAL GROUP FLASHCARDS. DRAW EQUAL GROUPS TO MODEL THE PROBLEM.

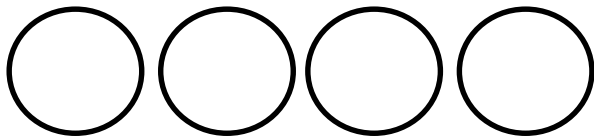
$$4 \div 2 = \underline{\quad}$$



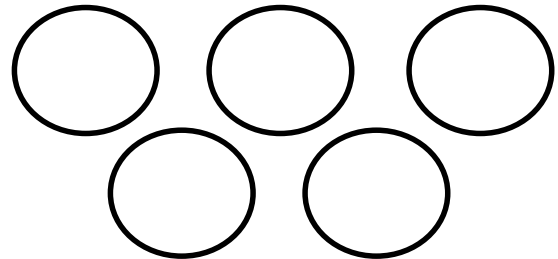
$$6 \div 3 = \underline{\quad}$$



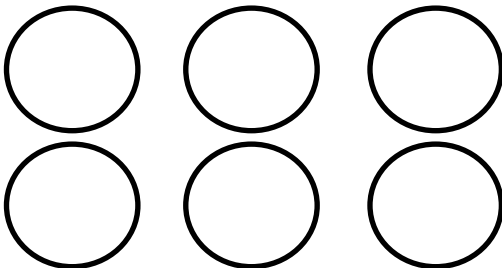
$$8 \div 4 = \underline{\quad}$$



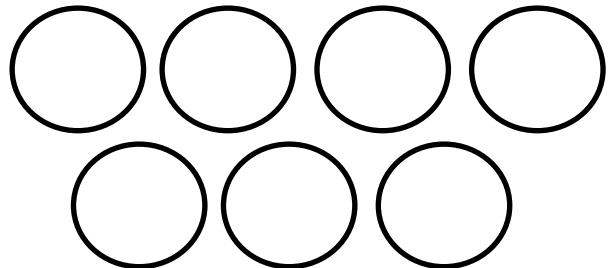
$$10 \div 5 = \underline{\quad}$$



$$12 \div 6 = \underline{\quad}$$

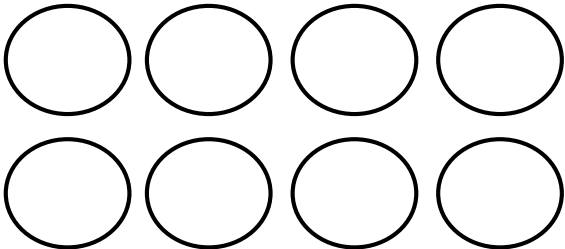


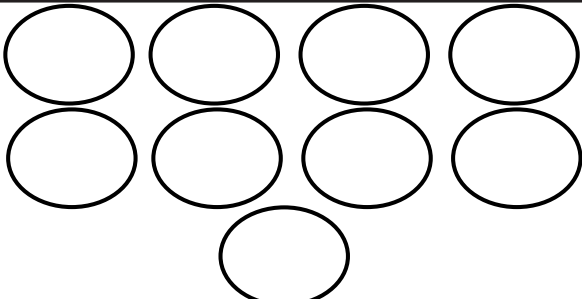
$$14 \div 7 = \underline{\quad}$$

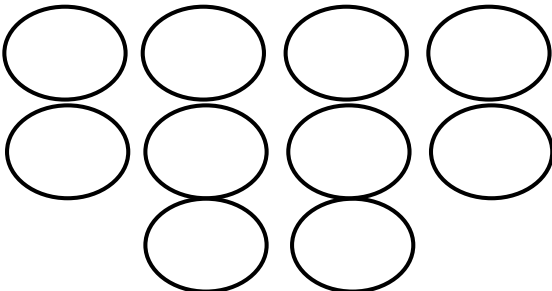


Equal Group Flashcards

MAKE YOUR OWN EQUAL GROUP FLASHCARDS. DRAW EQUAL GROUPS TO MODEL THE PROBLEM.

16 ÷ 8 = _____


18 ÷ 9 = _____


20 ÷ 10 = _____


Regular Flashcards

$$4 \div 2$$

$$6 \div 3$$

$$8 \div 4$$

$$10 \div 5$$

$$12 \div 6$$

$$14 \div 7$$

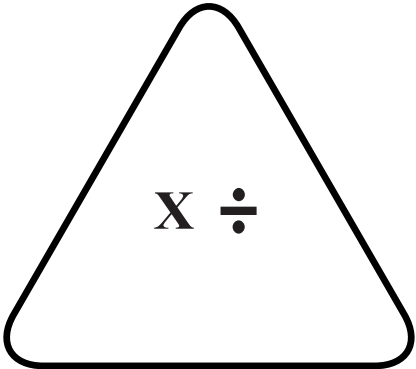
Regular Flashcards

$$16 \div 8$$

$$18 \div 9$$

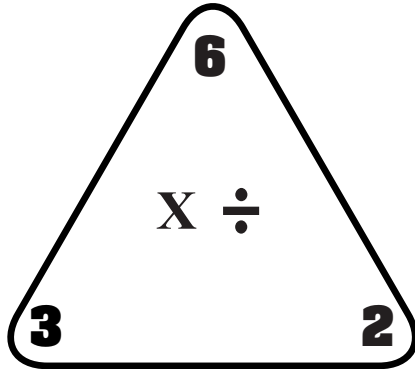
$$20 \div 10$$

TRIANGLE FACT FAMILY



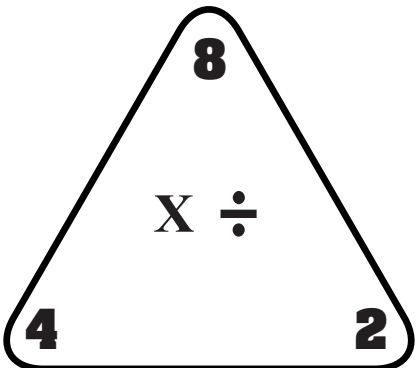
$\times \div$

_____ \times _____ = _____
_____ \times _____ = _____
_____ \div _____ = _____
_____ \div _____ = _____



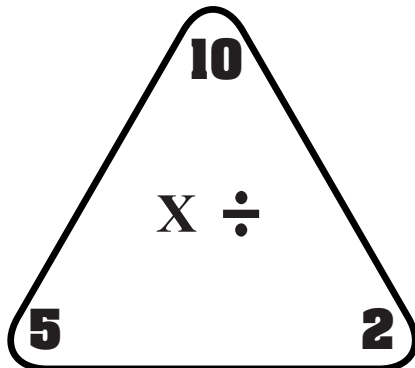
$\times \div$

_____ \times _____ = _____
_____ \times _____ = _____
_____ \div _____ = _____
_____ \div _____ = _____



$\times \div$

_____ \times _____ = _____
_____ \times _____ = _____
_____ \div _____ = _____
_____ \div _____ = _____



$\times \div$

_____ \times _____ = _____
_____ \times _____ = _____
_____ \div _____ = _____
_____ \div _____ = _____

TRIANGLE FACT FAMILY

12

$\times \div$

6 2

\times =

\times =

\div =

\div =

14

$\times \div$

7 2

\times =

\times =

\div =

\div =

16

$\times \div$

8 2

\times =

\times =

\div =

\div =

18

$\times \div$

9 2

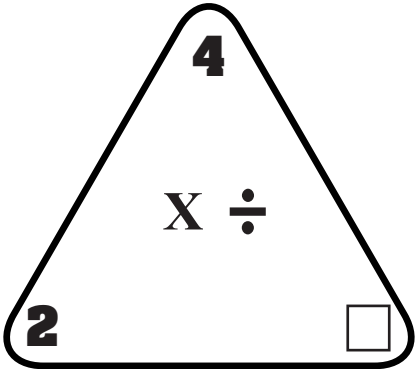
\times =

\times =

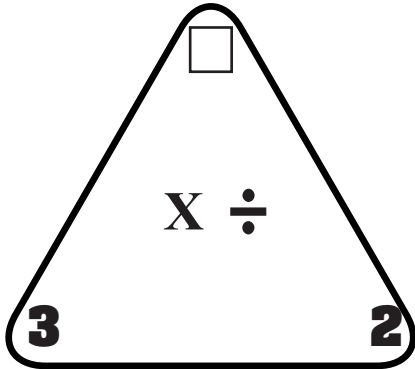
\div =

\div =

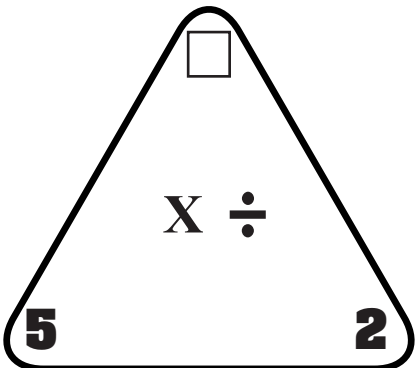
TRIANGLE FACT FAMILY



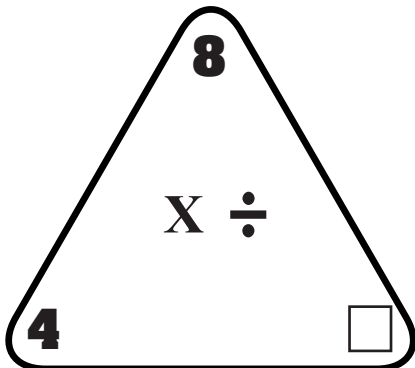
$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$



$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$



$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$



$\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$
 $\underline{\quad} \div \underline{\quad} = \underline{\quad}$

TRIANGLE FACT FAMILY

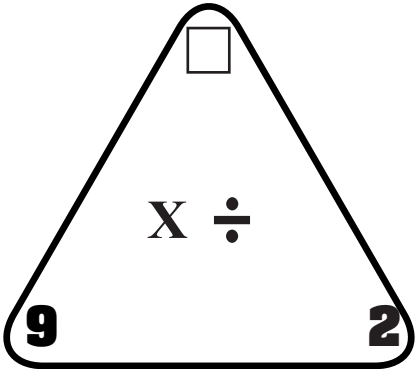


Diagram: A triangle with a small square at the top vertex. The numbers 9 and 2 are at the bottom-left and bottom-right vertices respectively. In the center of the triangle is the text $\times \div$.

Below the triangle are four rows of blank lines for equations:

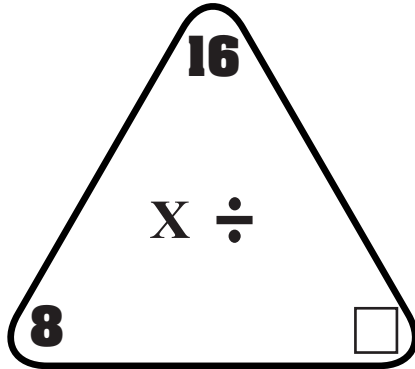
$$\begin{array}{rcl} \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \end{array}$$


Diagram: A triangle with a small square at the bottom-right vertex. The numbers 16 and 8 are at the top and bottom-left vertices respectively. In the center of the triangle is the text $\times \div$.

Below the triangle are four rows of blank lines for equations:

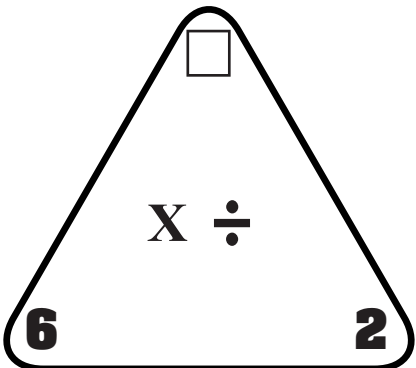
$$\begin{array}{rcl} \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \end{array}$$


Diagram: A triangle with a small square at the top vertex. The numbers 6 and 2 are at the bottom-left and bottom-right vertices respectively. In the center of the triangle is the text $\times \div$.

Below the triangle are four rows of blank lines for equations:

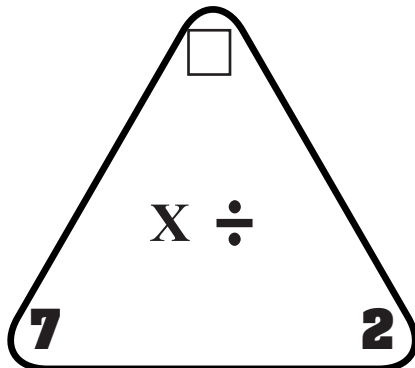
$$\begin{array}{rcl} \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \end{array}$$


Diagram: A triangle with a small square at the top vertex. The numbers 7 and 2 are at the bottom-left and bottom-right vertices respectively. In the center of the triangle is the text $\times \div$.

Below the triangle are four rows of blank lines for equations:

$$\begin{array}{rcl} \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \times & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \\ \underline{\hspace{1cm}} & \div & \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \end{array}$$

WORD PROBLEM

MODEL YOUR THINKING AND SOLVE THE PROBLEM.

THE BAKERY HAD 6
DONUTS. THEY PUT 3 IN
EACH BAG. HOW MANY
BAGS DID THEY USE?

$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

THE BAKERY HAD 8
DONUTS. THEY PUT 4 IN
EACH BAG. HOW MANY
BAGS DID THEY USE?

$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

THE BAKERY MADE 10
MUFFINS. THEY PACKED 5
IN A BOX. HOW MANY
BOXES DID THEY USE?

$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

THE BAKERY MADE 18
HAND PIES. THEY PUT 9
IN EACH BOX. HOW MANY
BOXES DID THEY USE?

$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

QUIZ

Follow the directions in each box. Choose an equation to represent each problem.

**I CAN SKIP COUNT TO
DIVIDE BY HALF!**

**I CAN USE EQUAL GROUPS
TO DIVIDE BY HALF!**

**I CAN USE ARRAYS TO
MODEL DIVIDING BY
HALF!**

**I CAN MODEL DIVIDING BY
HALF ON THE NUMBER
LINE!**

**I CAN USE REPEATED
SUBTRACTION TO DIVIDE BY
HALF.**

**MY STRATEGY FOR THINKING
ABOUT DIVIDING BY HALF IS....**

CERTIFICATE

★ **GREAT MATH WORK!** ★

HAS SUCCESSFULLY PRACTICED DIVIDING
BY HALF!

GREAT JOB!

TEACHER: _____ DATE: _____

Looking at the halves

$$4 \div 2 = 2$$

$$6 \div 3 = 2$$

$$8 \div 4 = 2$$

$$10 \div 5 = 2$$

$$12 \div 6 = 2$$


$$14 \div 7 = 2$$

$$16 \div 8 = 2$$

$$18 \div 9 = 2$$

$$20 \div 10 = 2$$

Bookmarks




**DIVIDING
BY
HALF**

$4 \div 2 = 2$
 $6 \div 3 = 2$
 $8 \div 4 = 2$
 $10 \div 5 = 2$
 $12 \div 6 = 2$
 $14 \div 7 = 2$
 $16 \div 8 = 2$
 $18 \div 9 = 2$
 $20 \div 10 = 2$

DIVIDING BY HALF

Hint : it's always 2 when you divide a number in half.




**DIVIDING
BY
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$4 \div 2 = 2$
 $6 \div 3 = 2$
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DIVIDING BY HALF

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**DIVIDING
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DIVIDING BY HALF

Hint : it's always 2 when you divide a number in half.