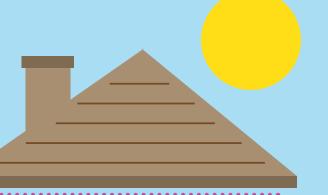
# All In The Fact Family





$$\frac{8}{6} + \frac{6}{8} = \frac{14}{14}$$
 $\frac{14}{8} = \frac{14}{8}$ 

$$3 + 7 = 10$$
 $7 + 3 = 10$ 

$$-3 = 7$$

$$10 - 7 = 3$$



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#### **ADDITION AND**

## SUBTRACTION CONNECTIONS 1

In math, we say that subtraction is the *inverse* of addition. That means that they are opposites... they *undo* each other. You can subtract to double check an addition problem.

**EXAMPLE:** 

If you know that 3 + 7 = 10... then you can subtract using those same numbers to check your thinking: 10 - 7 = 3 or 10 - 3 = 7!

**DIRECTIONS:** 

Find the missing number in the first column and complete the addition number sentence. Then subtract to double check your thinking. Write a subtraction number sentence in the blank box to show the *inverse* of what you added.

| lf | 6 + 4 | _ = 10 | then 10 - 4 = 6 *(or 10 - 6 = 4) |
|----|-------|--------|----------------------------------|
| lf | 8 +   | _ = 10 | then                             |
| lf | 12 +  | _ = 17 | then                             |
| lf | 3+    | _ = 12 | then                             |
| lf | 9+    | _ = 13 | then                             |
| lf | 7 +   | _ = 9  | then                             |
| lf | 8 +   | _ = 11 | then                             |
| lf | 2+    | _ = 8  | then                             |
| lf | 4 +   | _ = 16 | then                             |
| If | 5+    | _ = 14 | then                             |

<sup>\*</sup> Children do not have to write both subtraction options in their answer.



#### **ADDITION AND**

#### **SUBTRACTION CONNECTIONS 2**

In math, we say that addition is the *inverse* of subtraction. That means that they are opposites... they *undo* each other. You can add to double check any subtraction problem.

**EXAMPLE:** If you know that 8 - 6 = 2... then you can add using those same numbers to check your thinking: 2 + 6 = 8 or 6 + 2 = 8!

**DIRECTIONS:** Find the missing number in the first column and complete the subtraction number sentence. Then add to double check your thinking. Write an addition number sentence in the blank box to show the *inverse* of what you subtracted.

| If 10 - 4 | = 6  | then 4 + 6 = 10 *(or 6 + 4 = 10) |  |
|-----------|------|----------------------------------|--|
| If 8      | = 3  | then                             |  |
| If 15     | = 10 | then                             |  |
| If 11     | = 4  | then                             |  |
| If 9      | = 2  | then                             |  |
| If 12     | = 8  | then                             |  |
| If 17     | = 11 | then                             |  |
| If 13     | = 7  | then                             |  |
| If 24     | = 14 | then                             |  |
| lf 14     | = 9  | then                             |  |

<sup>\*</sup> Children do not have to write both subtraction options in their answer.



#### **INVERSE ADDITION PRACTICE**

The missing number in these addition problems all come at the beginning of the number sentences. Can you work backwards using the *inverse operation* (subtraction) to complete each problem? Give it a try!

#### **INVERSE SUBTRACTION PRACTICE**

The missing number in these subtraction problems all come at the beginning of the number sentences. Can you work backwards using the *inverse operation* (addition) to complete each problem? Give it a try!

#### **ADDITION AND SUBTRACTION CHALLENGE:**

#### **INVERSE OPERATIONS!**

Look carefully at these addition and subtraction problems. Fill in what is missing to complete the inverse operation. Can you follow the pattern?



$$20 + 7 = 27$$

so then

$$27 - 7 = 20$$



$$18 + 5 = 23$$

so then



so then



so then



so then



so then



so then



so then

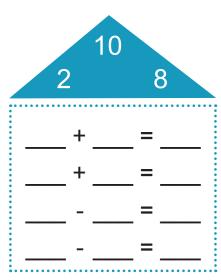


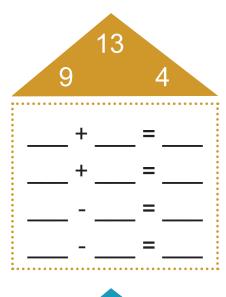
so then

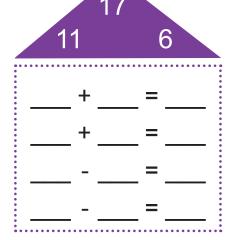


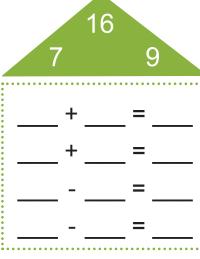
#### **FACT FAMILY HOUSES**

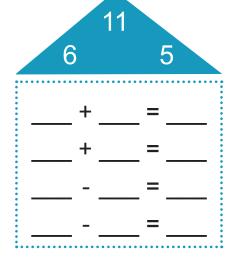
Each triangle contains the numbers in a *fact family*. Add or subtract using the three numbers.



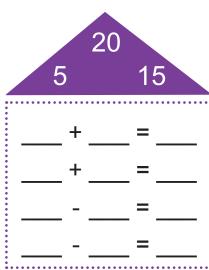


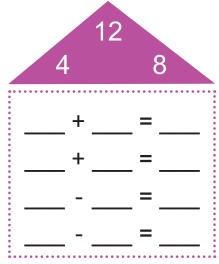






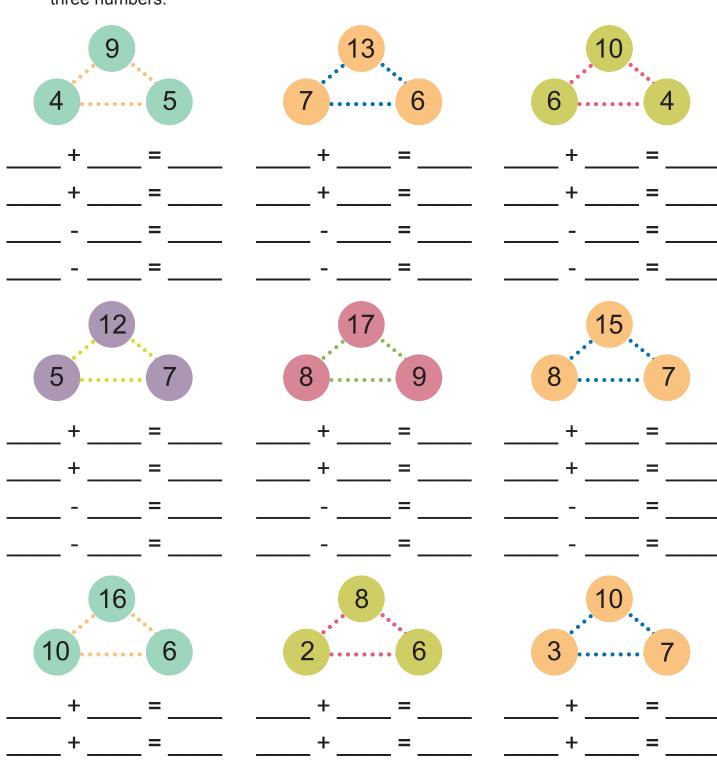
| 5 | 14 | 9        |
|---|----|----------|
| + | =  | =        |
| + | =  | =        |
|   |    | =        |
|   |    | <b>=</b> |





#### **FACT FAMILIES**

Each rectangle contains the numbers in a *fact family*. Add or subtract using the three numbers.





### ICY FACT FAMILIES

Fill in the missing numbers in the addition and subtraction problems. Then finish the fact families by writing the missing numbers.

1

$$10 - = 1$$

$$6 + 2 =$$

$$2 + = 8$$

8



$$8 - = 6$$

## PAGE 2

$$3 + _{---} = 7$$

3

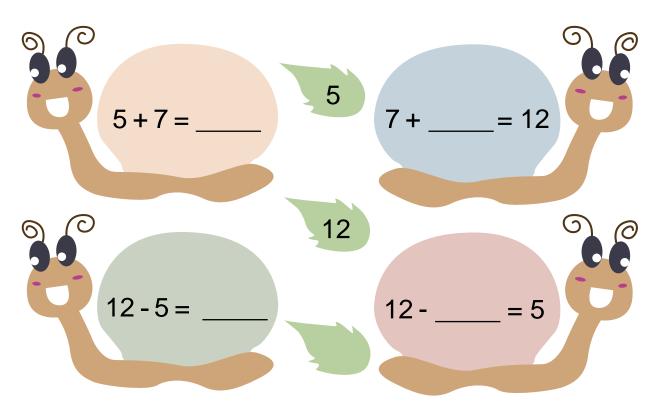
$$7 - = 4$$

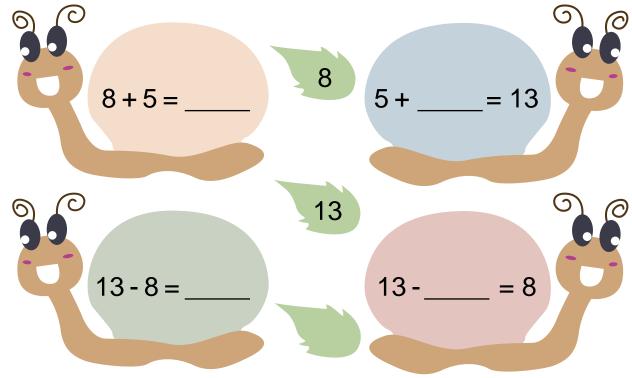
5

$$5 - = 3$$

#### **SNAIL FACT FAMILIES**

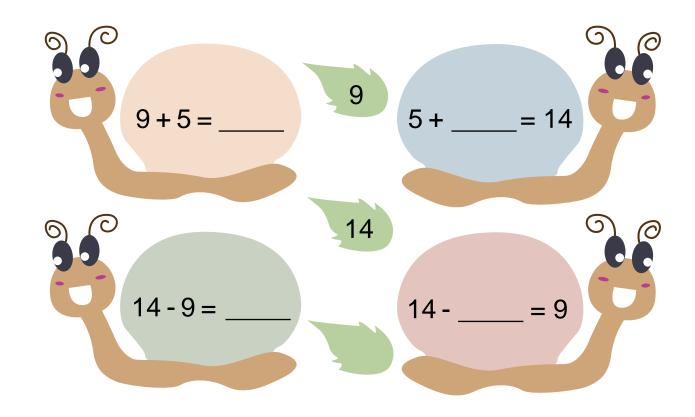
Finish the fact families by writing the missing numbers. Then write the missing third number on the blank leaf.

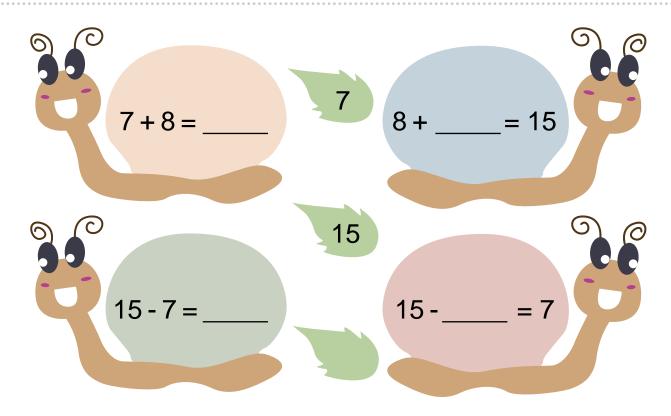






## PAGE 2

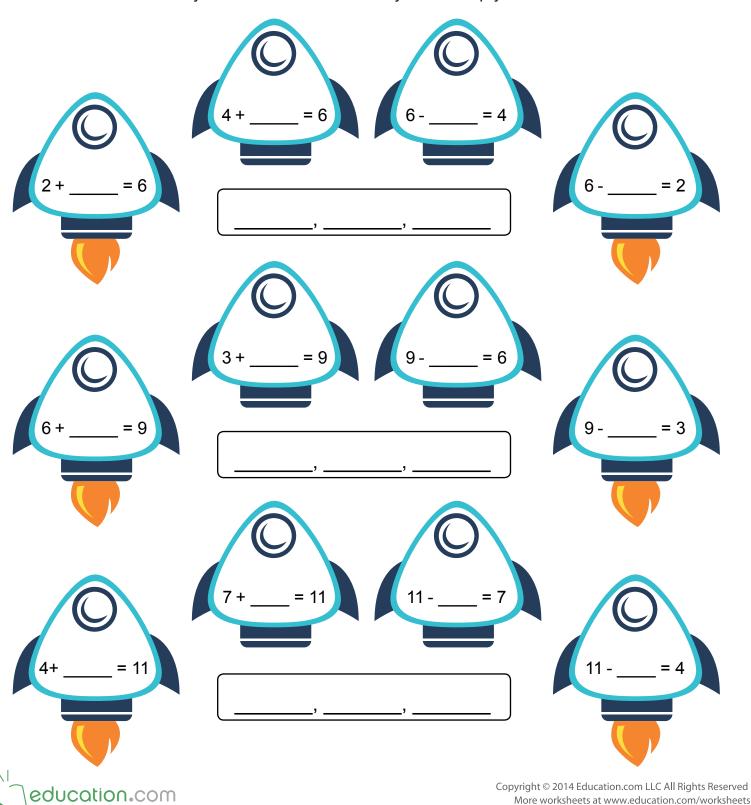




# REACH FOR THE STARS

#### PILOTS, PREPARE FOR TAKEOFF!

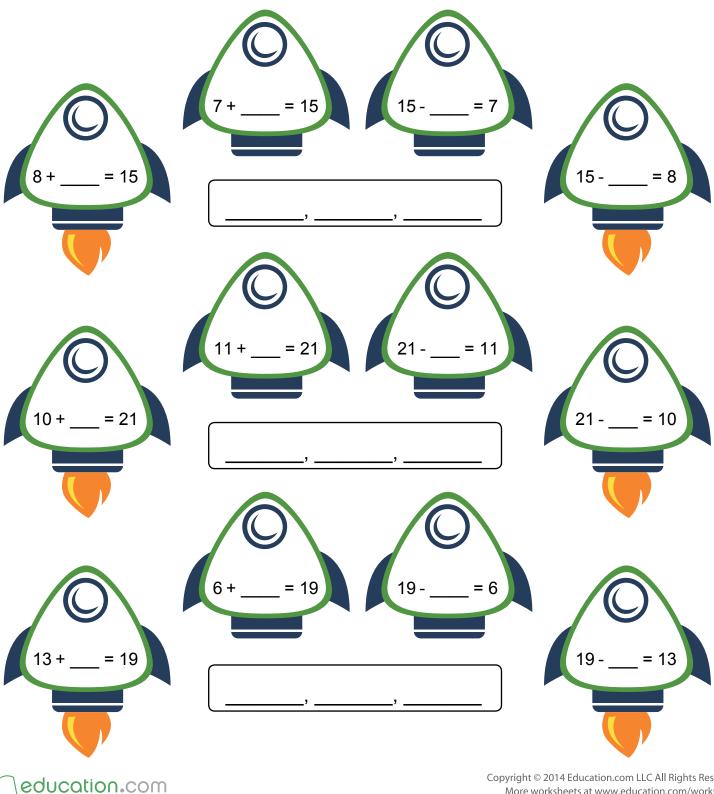
Fill in the blank to complete the math problem on each spaceship below. Then write the three numbers you used for this fact family in the empty box.



## **REACH FOR THE STARS**

#### PILOTS, PREPARE FOR TAKEOFF!

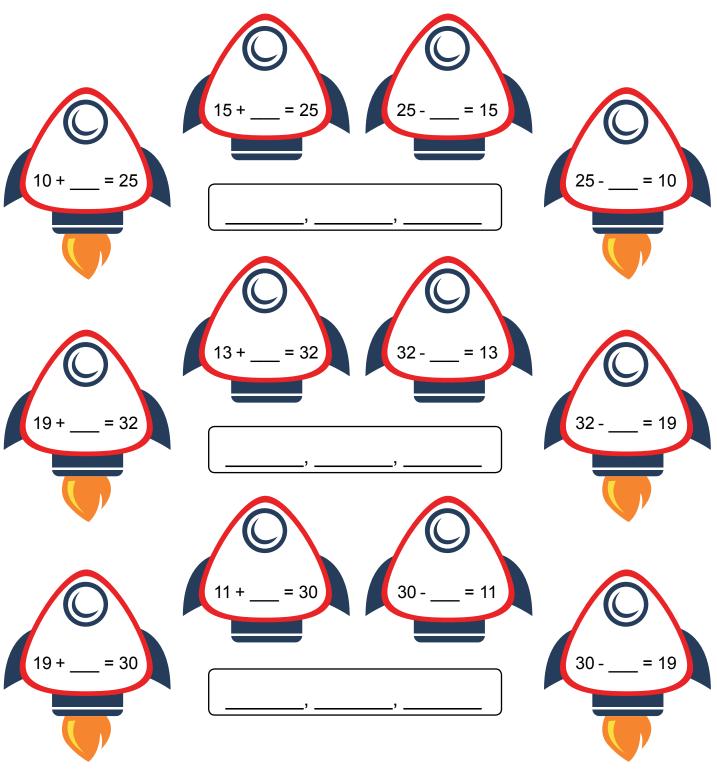
Fill in the blank to complete the math problem on each spaceship below. Then write the three numbers you used for this fact family in the empty box.



## REACH FOR THE STARS

#### PILOTS, PREPARE FOR TAKEOFF!

Fill in the blank to complete the math problem on each spaceship below. Then write the three numbers you used for this fact family in the empty box.



#### **CHECKING SUBTRACTION**

Subtract, then add to check your answer.

Now complete the fact family with the numbers used above.

and 
$$----+9=13$$

$$\frac{2}{12 - 5 = - - - - -} \quad \text{and} \quad \frac{- - - - -}{- - - -} + 5 = 12$$

## حل مل مل مل مل مل مل مل مل

and

and



and

and



and

and



and



and



## حل مل مل مل مل مل مل مل مل

8

and

and

9

and

and

10

and

and

11

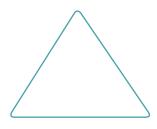
and

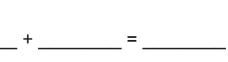
and

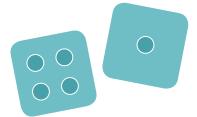


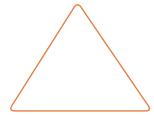
### **FACT FAMILY DICE**

Add together the two dice to find the missing fact family number. Fill in the fact triangle using these numbers. Remember that the biggest number always sits at the top of the triangle! Then build your fact family number sentences using the blank lines.

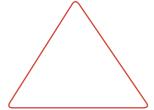




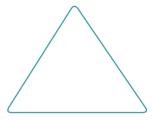


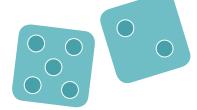


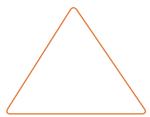












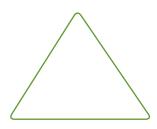






#### FACT FAMILY DICE # 2

Now **subtract** the two dice to find the missing fact family number. Fill in the fact triangle using these numbers. Remember that the biggest number always sits at the top of the triangle! Then build your fact family number sentences using the blank lines.



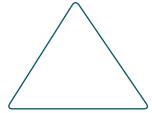






























# FACT FAMILY MIX UP!

Fill in the missing numbers in the fact family house. Then, find the roof that matches the bottom of the house and draw a line to connect the two pieces.



$$3 + 10 = 10$$
 $7 + 3 = 10$ 
 $-3 = 7$ 
 $10 - 7 = 3$ 

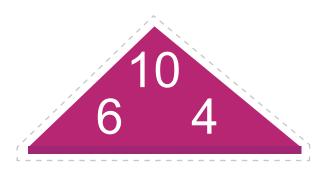


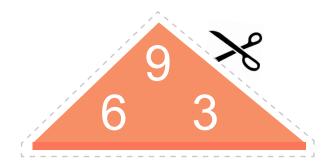


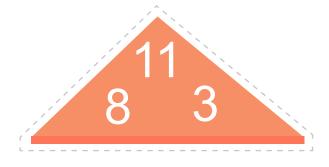
$$2 + \boxed{ } = 13$$
 $11 + 2 = 13$ 
 $-2 = 11$ 
 $13 - 11 = \boxed{ }$ 

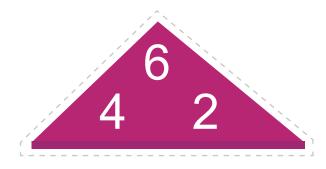
# FACT FAMILY MIX UP!

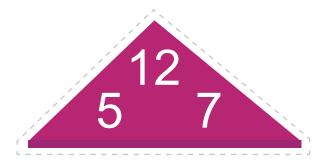
Cut out all of the roof pieces on page 1. Find the bottom of the house on page 2 that matches each roof and glue your house pieces together. If a fact family house is missing some information, make sure to fill it in yourself.

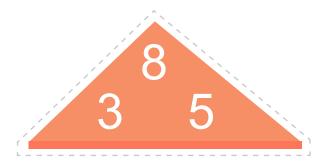










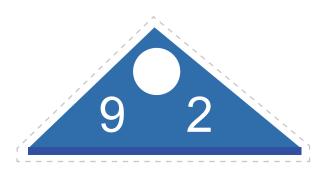


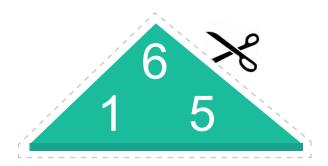


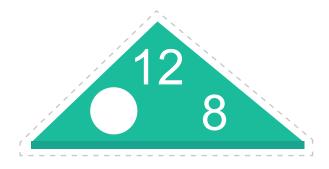


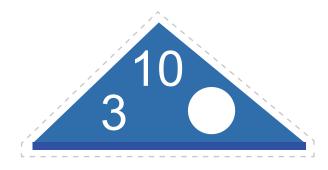
# FACT FAMILY MIX UP!

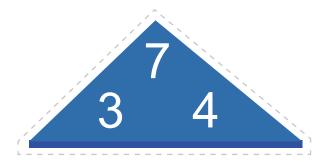
Cut out all of the roof pieces on page 1. Find the bottom of the house on page 2 that matches each roof and glue your house pieces together. If a fact family house is missing some information, make sure to fill it in yourself!

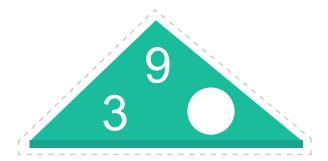














$$3 + = 10 \quad 7 + 3 = 10$$

$$-3 = 4$$



# **DOMINO FACT FAMILIES**

Add the domino dots together to find a total. Then use these three numbers to build your fact family number sentences.

| ••••••• | · · · · · · · · · · · · · · · · · · · |
|---------|---------------------------------------|
|         |                                       |
|         |                                       |
|         |                                       |
|         |                                       |
|         |                                       |
|         |                                       |
|         |                                       |



## **DOMINO FACT FAMILIES**

Add the domino dots together to find a total. Then use these three numbers to build your fact family number sentences.

| ••••••• | · · · · · · · · · · · · · · · · · · · |
|---------|---------------------------------------|
|         |                                       |
|         |                                       |
|         |                                       |
|         |                                       |
|         |                                       |
|         |                                       |



### **DOMINO FACT FAMILIES**

Add the domino dots together to find a total. Then use these three numbers to build your fact family number sentences.

| •••••• | · · · · · · · · · · · · · · · · · · · |
|--------|---------------------------------------|
|        |                                       |
|        |                                       |
|        |                                       |
|        |                                       |
|        |                                       |
|        |                                       |





#### **MAKING NUMBER CONNECTIONS**

Complete the fact family houses below. Then use the word bank at the bottom of the page to answer the questions.

10 6 4

\_\_\_+\_\_=\_\_\_+\_\_=\_\_\_

\_\_\_-\_\_=\_\_\_

16 14 2

\_\_\_+\_\_=\_\_\_+\_\_=\_\_

\_\_\_\_-\_\_=\_\_\_\_=\_\_\_

5 8 3

\_\_\_+\_\_=\_\_\_+\_\_=\_\_

\_\_\_-\_\_=\_\_\_

9 7

\_\_\_+\_\_=\_\_\_+\_\_=\_\_

| \_\_\_\_ - \_\_\_ = \_\_\_ \_ \_\_\_ - \_\_\_ = \_\_\_

15 12 3

\_\_+\_\_=\_\_\_+\_\_=\_\_\_

\_\_\_-\_\_=\_\_\_ \_\_\_-

13 8

\_\_\_+\_\_=\_\_\_+\_\_=\_\_

\_\_\_=\_= \_\_\_= \_\_\_= \_\_\_=

12 4 2

20

6 5

7 2

Use the words in the word bank to complete the sentences below.

#### **WORD BANK**

even

odd

- 1. When you add two even numbers together, the total or sum will always be \_\_\_\_\_\_.
- 2. When you add two odd numbers together, the total or sum will always be \_\_\_\_\_\_.
- 3. When you add an even number together with an odd number, the total or sum will always be \_\_\_\_\_\_.



#### **HUNTING FOR FACT FAMILIES:**

### NUMBERS 1-15

Find all of the fact families in the puzzle below. Draw a red box around the fact family squares to show which number sentences go together.

| 4  | 6  | 13 | =  | 1  | +  | 5  | =  | 6  | 5  | +  | 1  | =  | 6  |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 3  | 10 | 12 | 2  | 6  | -  | 1  | =  | 5  | 6  | 1  | 5  | =  | 1  |
| 9  | 2  | +  | 4  | Ш  | 6  | 4  | +  | 2  | Ш  | 6  | 2  | +  | 4  |
| 2  | 6  | ı  | 2  | Ш  | 4  | 6  | ı  | 4  | Ш  | 2  | 3  | •  | 13 |
| 3  | 12 | 8  | +  | 3  | =  | 12 | 8  | ı  | 9  | +  | 6  | =  | 15 |
| 9  | 8  | 4  | 3  | 1  | 8  | =  | 1  | 5  | 6  | +  | 9  | =  | 15 |
| 12 | 1  | 5  | -  | 1  | =  | 7  | 14 | +  | 15 | ı  | 9  | =  | 6  |
| 7  | 4  | 9  | 7  | +  | 3  | Ш  | 7  | 8  | 15 | ı  | 6  | Ш  | 9  |
| 15 | 6  | 2  | +  | 15 | Ш  | 10 | 16 | +  | 1  | II | 15 | 11 | -  |
| 8  | 12 | +  | 3  | II | 15 | 3  | +  | 12 | Ш  | 15 | 2  | +  | 3  |
| 11 | 15 | -  | 12 | =  | 3  | 15 | -  | 3  | =  | 12 | 6  | -  | 2  |
| 4  | +  | 7  | =  | 11 | 3  | +  | 11 | 9  | ı  | 8  | =  | 1  | 7  |
| 7  | +  | 4  | =  | 11 | 4  | -  | 6  | =  | 2  | 14 | +  | 11 | 9  |
| 11 | _  | 4  | =  | 7  | 7  | 9  | Ш  | 10 | 1  | 4  | -  | 3  | 1  |
| 11 | _  | 7  | =  | 4  | 11 | 10 | +  | 2  |    | 11 | 7  | +  | 10 |

#### **HUNTING FOR FACT FAMILIES:**

#### NUMBERS 10-25

Find all of the fact families in the puzzle below. Draw a red box around the fact family squares to show which number sentences go together.

| 13 | +  | 3  | =  | 16 | 16 | +  | 3  | =  | 19 | 19 | -  | 4  | 6  |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 3  | +  | 13 | =  | 16 | 12 | -  | 4  | =  | 11 | 3  | +  | 11 | 1  |
| 16 | ı  | 13 | =  | 3  | 3  | Ш  | 23 | -  | 4  | +  | 2  | =  | 4  |
| 16 | ı  | 3  | =  | 13 | 2  | +  | 19 | =  | 21 | 24 | +  | 1  | 23 |
| 3  | 12 | 8  | +  | 3  | 19 | +  | 2  | Ш  | 21 | 3  | ı  | 2  | 1  |
| 9  | 8  | 4  | 3  | -  | 21 | ı  | 2  | Ш  | 19 | 6  | 9  | =  | 1  |
| 12 | 1  | 5  | -  | 1  | 21 | ı  | 19 | Ш  | 2  | 8  | 3  | +  | 6  |
| 7  | 4  | 9  | 7  | +  | 3  | Ш  | 7  | 8  | 15 | 1  | 6  | =  | 9  |
| 9  | +  | 10 | =  | 19 | 10 | +  | 9  | Ш  | 19 | 20 | ı  | 11 | =  |
| 19 | ı  | 9  | =  | 10 | 19 | -  | 10 | =  | 9  | 19 | +  | 2  | =  |
| 12 | +  | 2  | 10 | +  | 11 | =  | 21 | 11 | +  | 10 | =  | 21 | 9  |
| 21 | -  | 7  | 21 | -  | 10 | =  | 11 | 21 | -  | 11 | =  | 10 | 2  |
| 9  | 2  | +  | 10 | 15 | +  | 3  | =  | 18 | 3  | +  | 15 | =  | 18 |
| 6  | 17 | -  | 22 | 18 | _  | 15 | =  | 3  | 18 | _  | 3  | =  | 15 |
| 8  | -  | 7  | =  | 3  | 3  | +  | 11 | =  | 7  | 21 | 8  | 17 | 13 |



#### **HUNTING FOR FACT FAMILIES:**

## **NUMBERS 25-50**

Find all of the fact families in the puzzle below. Draw a red box around the fact family squares to show which number sentences go together.

|    | 1  |    | 1  |    |    | 1  | 1  | ı  | 1  | 1  |    | 1  |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 35 | +  | 20 | =  | 26 | +  | 16 | =  | 42 | +  | 20 | Ш  | 52 | 12 |
| 8  | •  | 4  | Ш  | 16 | +  | 26 | =  | 42 | ı  | 10 | Ш  | 22 | 42 |
| 21 | +  | 12 | Ш  | 42 | ı  | 26 | =  | 16 | 54 | +  | 21 | =  | 61 |
| 98 | 8  | +  | 32 | 42 | 1  | 16 | =  | 26 | 30 | -  | 11 | =  | 22 |
| 29 | +  | 15 | =  | 44 | 15 | +  | 29 | =  | 44 | 1  | +  | 35 | 12 |
| 44 | -  | 29 | =  | 15 | 44 | -  | 15 | =  | 29 | 4  | -  | 12 | 11 |
| 9  | 82 | 5  | -  | 1  | Ш  | 7  | 14 | +  | 15 | 1  | 9  | =  | 16 |
| 10 | 1  | 42 | +  | 8  | Ш  | 50 | 7  | 39 | +  | 10 | Ш  | 49 | 11 |
| 25 | 34 | 8  | +  | 42 | Ш  | 50 | 16 | 10 | +  | 39 | Ш  | 49 | 53 |
| 36 | +  | 50 | ı  | 42 | Ш  | 8  | +  | 49 | •  | 39 | Ш  | 10 | 22 |
| 65 | 29 | 50 | -  | 8  | =  | 42 | -  | 49 | -  | 10 | =  | 39 | 47 |
| 14 | +  | 56 | =  | 79 | +  | 20 | =  | 67 | 67 | -  | 50 | 49 | 12 |
| 56 | _  | 14 | =  | 68 | -  | 26 | =  | 1  | 23 | 28 | -  | 10 | 39 |
| 15 | +  | 9  | =  | 36 | +  | 11 | =  | 47 | 11 | +  | 36 | =  | 47 |
| 19 | -  | 18 | II | 47 | _  | 36 | =  | 11 | 47 | •  | 11 | =  | 36 |



#### **WHERE'S THE FACT FAMILY?**



Find the numbers that work together to make a fact family. Draw a red box around the number set to show that they go together.

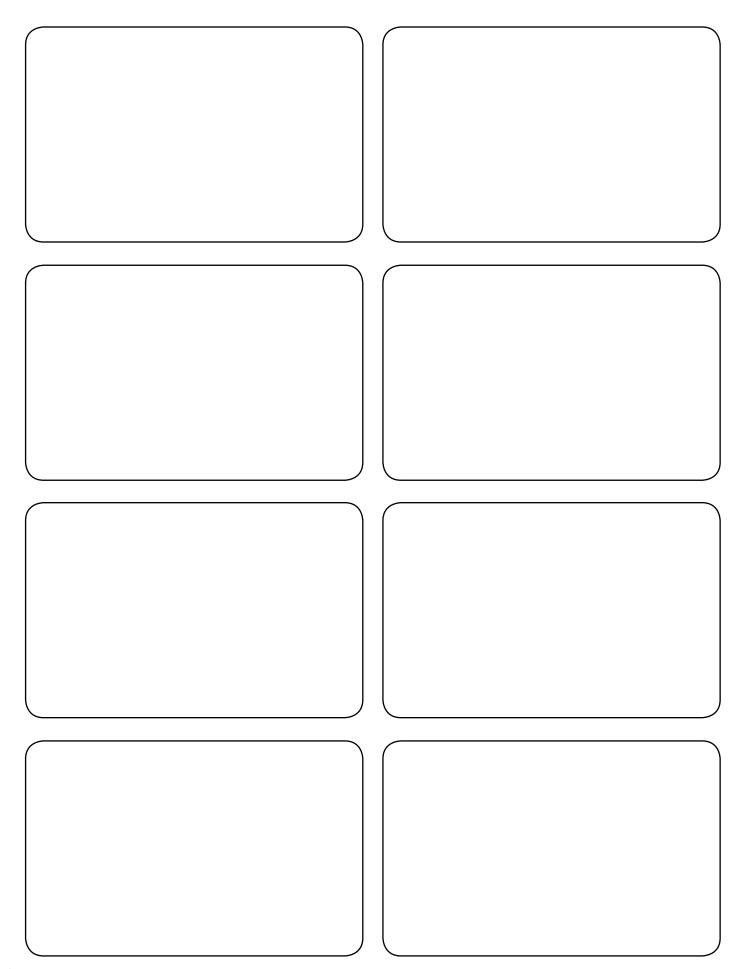
| 5 | 8  | 13 | 2  | 10 | 4  | 3  | 11 | 4  | 2  | 14 | 8  | 3  | 11 |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 4  | 5  | 11 | 1  | 19 | 10 | 10 | 2  | 1  | 12 | 1  | 13 | 6  |
| 6 | 13 | 3  | 6  | 8  | 2  | 12 | 8  | 6  | 9  | 8  | 7  | 1  | 8  |
| 9 | 10 | 9  | 2  | 2  | 1  | 9  | 5  | 4  | 9  | 2  | 12 | 5  | 2  |
| 7 | 4  | 2  | 3  | 10 | 7  | 5  | 4  | 3  | 5  | 8  | 11 | 3  | 1  |
| 8 | 2  | 3  | 9  | 3  | 8  | 3  | 11 | 2  | 7  | 2  | 8  | 7  | 15 |
| 7 | 9  | 1  | 8  | 1  | 2  | 9  | 4  | 9  | 10 | 9  | 18 | 10 | 5  |
| 2 | 1  | 8  | 5  | 8  | 9  | 4  | 7  | 11 | 5  | 11 | 8  | 5  | 6  |

#### **RECORD YOUR EQUATIONS**

Now, use the number sets above to write each complete fact family in the boxes below. Remember, you need two addition number sentences and two subtraction number sentences to make the fact family complete!









#### **WHERE'S THE FACT FAMILY?**



Find the numbers that work together to make a fact family. Draw a red box around the number set to show that they go together.

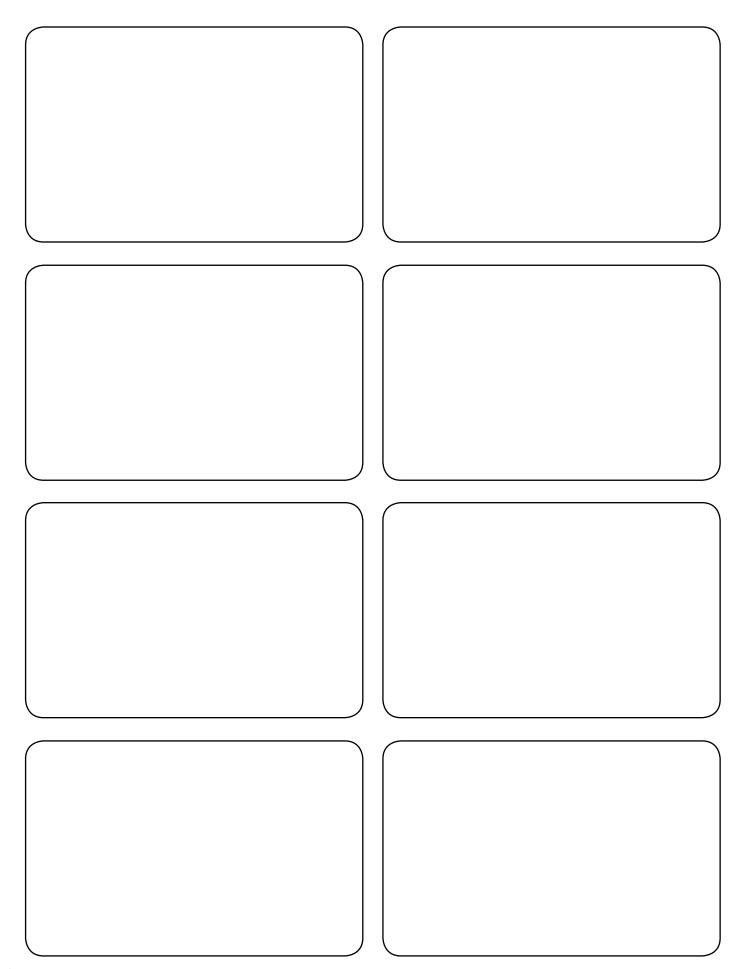
| 17 | 28 | 18 | 32 | 10 | 11 | 36 | 1  | 8  | 22 | 27 | 2  | 18 | 20 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 23 | 7  | 13 | 20 | 19 | 15 | 19 | 3  | 21 | 5  | 30 | 5  | 13 | 18 |
| 21 | 3  | 16 | 3  | 11 | 22 | 11 | 13 | 3  | 16 | 16 | 13 | 10 | 19 |
| 8  | 13 | 9  | 4  | 8  | 10 | 20 | 2  | 5  | 18 | 19 | 18 | 41 | 9  |
| 15 | 18 | 10 | 18 | 19 | 13 | 16 | 29 | 9  | 30 | 21 | 11 | 29 | 17 |
| 23 | 8  | 29 | 10 | 11 | 21 | 23 | 15 | 1  | 7  | 28 | 5  | 41 | 26 |
| 2  | 10 | 31 | 16 | 4  | 35 | 41 | 43 | 2  | 16 | 10 | 21 | 51 | 23 |
| 19 | 24 | 29 | 20 | 11 | 39 | 24 | 12 | 14 | 23 | 7  | 14 | 15 | 26 |

#### **RECORD YOUR EQUATIONS**

Now, use the number sets above to write each complete fact family in the boxes below. Remember, you need two addition number sentences and two subtraction number sentences to make the fact family complete!









#### WHERE'S THE FACT FAMILY?



Find the numbers that work together to make a fact family. Draw a red box around the number set to show that they go together.

| 67 | 23 | 28 | 60 | 30 | 25 | 55 | 25 | 10 | 23 | 20 | 52 | 17 | 30 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 81 | 15 | 19 | 19 | 31 | 60 | 27 |    |    | 17 |    | 41 | 21 | 10 |
| 23 | 38 |    | 22 | 42 |    | 13 | 43 |    | 82 | 10 | 29 | 19 | 40 |
| 51 | 12 |    | 41 | 23 | 40 |    | 52 |    | 22 |    | 47 | 31 | 22 |
| 28 | 18 | 46 | 65 | 39 | 13 |    | 37 |    | 62 |    | 12 | 18 | 12 |
| 81 | 41 | 56 | 47 | 30 | 41 |    | 10 |    | 42 |    | 40 | 25 | 43 |
| 22 | 27 | 49 | 39 | 33 | 15 |    | 23 | 60 | 45 | 19 | 31 | 38 | 29 |
| 16 | 15 | 32 | 24 | 57 | 56 | 25 | 11 | 13 | 50 | 18 | 52 | 55 | 20 |

#### **RECORD YOUR EQUATIONS**

Now, use the number sets above to write each complete fact family in the boxes below. Remember, you need two addition number sentences and two subtraction number sentences to make the fact family complete!

