### **Fact Families** Skill 3 - 6A

#### Relate Addition and Subtraction

This is an example of a fact family. Fact Families use related addition and subtraction facts.

Fact Family for the numbers 3,4,7

$$3 + 4 = 7$$
  $7 - 4 = 3$ 

$$7 - 4 = 3$$

$$4 + 3 = 7$$
  $7 - 3 = 4$ 

$$7 - 3 = 4$$

The two equations on the left are 3 + 4 = 7 and 4 + 3 = 7. You can add 3 + 4 in a any order and the sum stays the same. (This is the order property - add in any order and the sum stays the same) The two equations on the right are related subtraction facts.

How to make the fact family for 1,2,3

## Step one

Write an addition fact using the numbers 1,2,3

$$1 + 2 = 3$$

# Step Two

Write a related subtraction fact for 1 + 2 = 3. To write a related subtract fact, reverse the order 3 - 2 = 1

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Skill 3 - 6A

Relate Addition and Subtraction

So far we have two equations. 1 + 2 = 3 and a related subtraction fact 3 - 2 = 1

$$1 + 2 = 3$$
  $3 - 2 = 1$ 

$$3 - 2 = 1$$

# Step Three

Write 1 + 2 = 3 in a different order. 2 + 1 = 3We place the equation below.

$$1 + 2 = 3$$
  $3 - 2 = 1$ 

$$3 - 2 = 1$$

$$2 + 1 = 3$$

# Step Four

Write a related subtraction fact for 2 + 1 = 3.

3 - 1 = 2 (notice that the order is reversed) We put that fact in the fact family below and the fact family is complete.

$$1 + 2 = 3$$
  $3 - 2 = 1$ 

$$3 - 2 = 1$$

$$2 + 1 = 3$$
  $3 - 1 = 2$ 

$$3 - 1 = 2$$

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Skill 3 - 6A

#### **Relate Addition and Subtraction**

**Directions:** Use the pictograph to answer the following questions.

| Farm Animals |             |  |
|--------------|-------------|--|
| Cows         |             |  |
| Chickens     |             |  |
| Sheep        |             |  |
| Goats        | ©**         |  |
| Key: Each    | = 2 animals |  |

1. How many chickens are on the farm?

2. How many goats are on the farm?

**3**. Write an addition sentence that shows how many chickens and goats there are in all?

The addition sentence 8 + 4 = 12 shows how many cows and sheep there are in all.

**4.** Write an addition sentence that belongs in the same fact family as 8 + 4 = 12

**5.** Write a subtraction sentence that belongs in the same fact family as 8 + 4 = 12

Answer the following questions.

6. Write an addition sentence that shows how many cows and chickens there are in all.

7. Which of the following is NOT in the fact family 6, 10, 16?

**A.** 10 + 6 = 16

**B.** 16 - 10 = 6

**C.** 6 + 16 = 22

**D.** 16 - 6 = 10

Skill 3 - 6A

**Relate Addition and Subtraction** 

**Directions:** Use the pictograph to answer the following questions.

| Farm Animals           |  |  |
|------------------------|--|--|
| Cows                   |  |  |
| Chickens               |  |  |
| Sheep                  |  |  |
| Goats                  |  |  |
| Key: Each = 2 animals. |  |  |

- 8. How many cows are there?
- **9.** How many sheep are there?
- **10.** Write an addition sentence that shows how many cows and sheep there are in all.

11 Write the fact family for the numbers 4 10 14

| 11. Write the fact family for the numbers 4, 10, 14 |  |  |
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- **12.** Write an addition sentence that shows how many chickens and goats there are in all.
- 13. Which of the following is NOT in the fact family 6, 8,14?

**A.** 
$$14 - 8 = 6$$

**B.** 
$$8 + 6 = 14$$

**B.** 
$$8 + 6 = 14$$
 **C.**  $14 + 6 = 20$  **D.**  $14 - 6 = 8$ 

**D.** 
$$14 - 6 = 8$$

14. Write an addition sentence that shows how many cows and goats there are in all.

**15.** Write the fact family for the numbers 4, 6, 10.

| 10: Write the last family for the frames 4, 0, 16 | , |
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Skill 3 - 6A

#### **Relate Addition and Subtraction**

**Directions:** Use the pictograph to answer the following questions.

| Farm Animals             |          |  |
|--------------------------|----------|--|
| Cows                     | O+ O+ O+ |  |
| Chickens                 |          |  |
| Sheep                    |          |  |
| Goats                    |          |  |
| Key: Each 🗀 = 2 animals. |          |  |

- 16. How many cows are there?
- **17.** How many sheep are there?
- 18. Write an addition sentence that shows how many cows and sheep there are in all.

19. Write the fact family for the numbers 6, 8, 14

- 20. Write an addition sentence that shows how many chickens and goats there are in all.
- 21. Which of the following is NOT in the fact family 10, 12, 22?

**A.** 
$$22 - 12 = 10$$

**C.** 
$$22 - 10 = 12$$

**D.** 
$$10 + 12 = 22$$

22. Write an addition sentence that shows how many cows and goats there are in all.

23. Write the fact family for the numbers 6, 12, 18

| 23. Write the fact fairling for the fidilibers 0, 12, | 10 |
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### Answer Key Skill 3 - 6A

**2.** 2

**4.** 4 + 8 = 12

5. 12 - 4 = 8 or 12 - 8 = 4

**6.** 
$$8 + 12 = 20$$

**9.** 10