Multiplication and Division 2

<u>L.O. To know multiplication and division facts (x4).</u>

Quiz!
Fill in the blanks with the missing numbers from the 4 times table (try counting on if you get stuck):

4   8   ___   16   20   24   28   ___   36   40   44   ___

DI
Multiplication and division are closely related, given that division is the **inverse** operation of multiplication. When we **divide**, we look to **separate** into **equal groups**, while **multiplication** involves **joining equal groups**.

We'll start with a multiplication question (remember in yesterday's lesson when I said if we learn our times tables it will make other maths easier!!): if we can answer **4 x 5 = 20**, its **inverse** (in the form of division) will be the following:
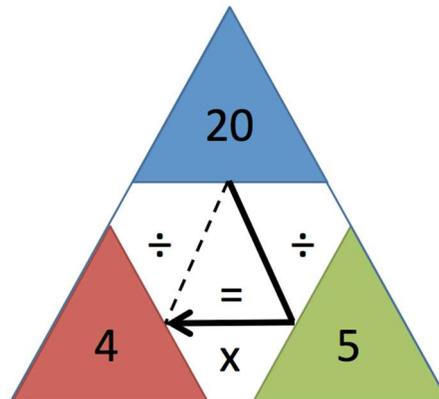

$$20 \div 5 = 4$$
$$20 \div 4 = 5$$

In the same way, if we take the division **20 ÷ 5 = 4**, its **inverse** (in the form of multiplication) will be the following:

$$4 \times 5 = 20$$
$$5 \times 4 = 20$$

In both examples, we can see that we use the ==same three numbers==. This is because when we multiply two numbers (which we call factors), we get a result that we call a product.

Just as if we divide a product by one of its factors, we get the other factor as a result.
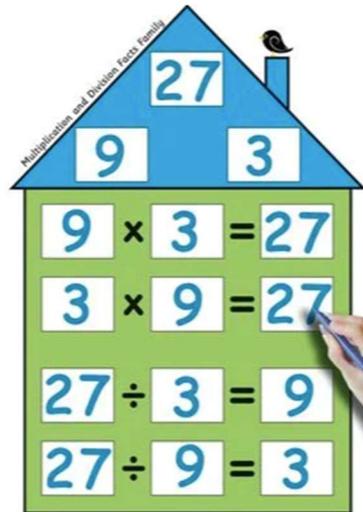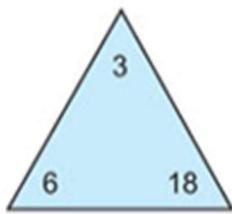
We can think of numbers the numbers that we are multiplying and dividing as **fact families** – like when you have a full house of people visiting and you have to work out where everyone is sleeping.

27

9   3

9 × 3 = 27

3 × 9 = 27

27 ÷ 3 = 9

27 ÷ 9 = 3

Watch the following clip for further explanation:
https://www.bbc.co.uk/teach/class-clips-video/maths-ks1--ks2-how-to-use-mental-methods-to-divide/zvg6nrd

GP
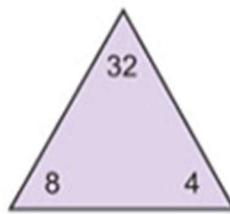You will find that if you know one number fact, you can use it to make at least three related statements!

3

6   18

32

8   4

11

110   10

6 x 3 = ____

3 x 6 = ____

18 ÷ 3 = ____

18 ÷ 6 = ____

____ x ____ = ____

____ x ____ = ____

____ ÷ ____ = ____

____ ÷ ____ = ____

____ x ____ = ____

____ x ____ = ____

____ ÷ ____ = ____

____ ÷ ____ = ____
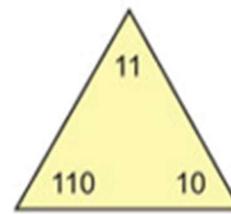
IP

1. Use your times tables knowledge to help you with your division by using the inverse operations to answer the questions below.
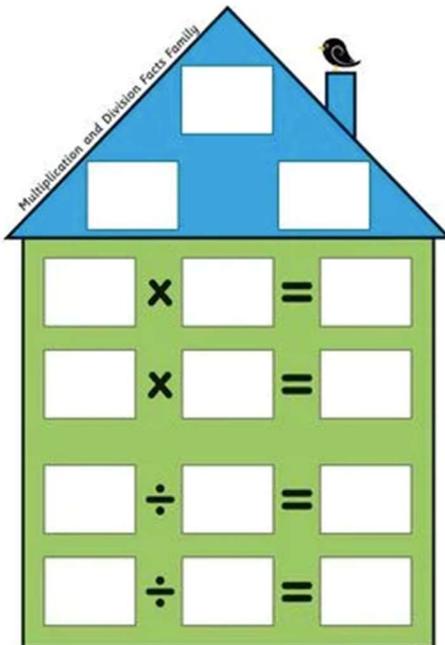
Example: 27 ÷ 9 =

27

9   3

$9 \times 3 = 27$

$3 \times 9 = 27$

$27 \div 3 = 9$

$27 \div 9 = 3$
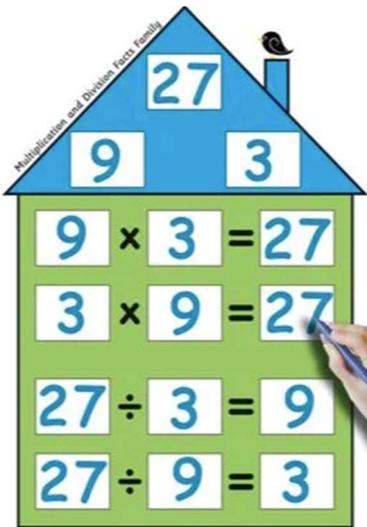
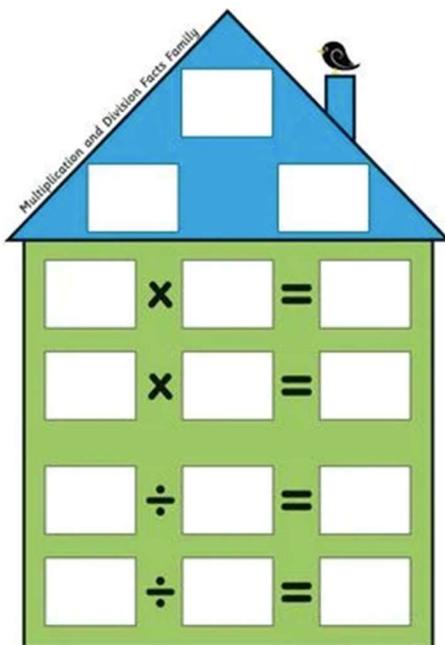2. **Fill in the roof with the information that you have.**

2. **Begin to complete the equations in the green house.**
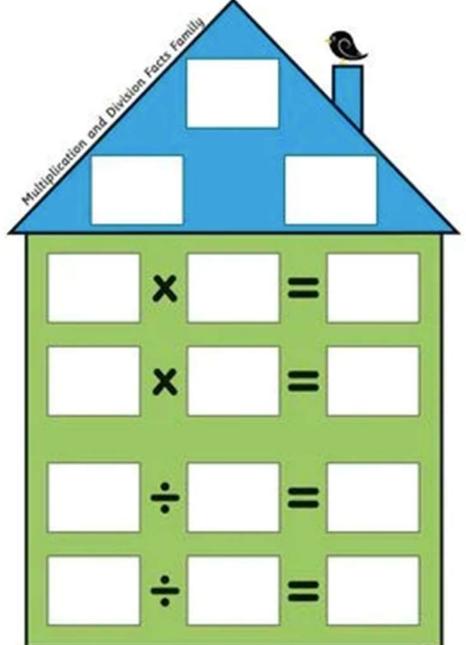
1. **Fill in the roof with the information that you have.**

1. 12 ÷ 4 = _____

2. 48 ÷ 4 = _____

3. 4 x 8 = _____

[ ] × [ ] = [ ]

[ ] × [ ] = [ ]

[ ] ÷ [ ] = [ ]

[ ] ÷ [ ] = [ ]

4. 9 x 4 = ___

Multiplication and Division Facts Family

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ ÷ ☐ = ☐

☐ ÷ ☐ = ☐

5. 44 ÷ 4 = ___

Multiplication and Division Facts Family

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ ÷ ☐ = ☐

☐ ÷ ☐ = ☐

6. 24 ÷ 4 = ___

Multiplication and Division Facts Family

☐ × ☐ = ☐

☐ × ☐ = ☐

☐ ÷ ☐ = ☐

☐ ÷ ☐ = ☐