**Highest Common Factor & Lowest Common Multiple**

**HCF – use the methods which have been show to you in the videos so that is either the factor trees or venn diagram. A factor is the times tables you find the number in.**

Find the Highest Common Factor of these numbers:

1. 18 and 30
2. 15 and 20
3. 16 and 24
4. 12 and 36
5. 28 and 70
6. 39 and 65
7. 38 and 57
8. 20 and 30

9. Jack thinks of two numbers, the HCF of these numbers is 6 and one of the numbers is 24 suggest what his other number may have been.

10. Put the following sets of numbers in order of their HCF, from lowest to highest:

1. 12, 15 and 18
2. 15, 10 and 6
3. 8, 16 and 24
4. 4, 6 and 24
5. 27, 18 and 45
6. 7, 21 and 42
7. 16, 8 and 20
8. 105, 210 and 5

11. Danielle says that the bigger a number the more factors it has. Is she right? Use examples to justify your answer.

**LCM – remember a multiple is just the times tables so find the lowest same number in both times tables.**

Find the Lowest Common Multiple of these numbers

1. 6 and 7
2. 4 and 6
3. 5 and 8
4. 10 and 4
5. 16 and 5
6. 14 and 21
7. 2.2 and 5
8. 0.4 and 7

9. The lowest common multiple of two numbers is 36, one number is 12, what might the other number be?

10. What is the LCM of 15 and 10 multiplied by the LCM of 6 and 20?

11. What is the LCM of 18 and 12 divided by their HCF?

**Ext:** If you add up all of the factors of 6 (not including 6 itself) you get the number 6, this makes 6 a perfect number. How many perfect numbers can you find? Challenge the person next to you.