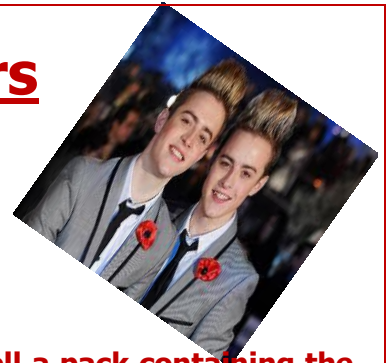


Factors and Prime Factors



Q1.

Jedward are selling some stationary at their concert. They want to sell a pack containing the same number of erasers and pencils, but they are coming from two different suppliers. Pencils come in packages of 18, erasers come in packages of 30. Jedward want to purchase the smallest number of pencils and erasers so that he will have exactly 1 eraser per pencil to see if their fans will buy them. How many packages of pencils and erasers should Phillip buy?

Q2.

Jedward's school choir are going to support them at a concert, it has 30 girls and 18 boys. Louis wants to arrange them in equal rows. Only girls or boys will be in each row. What is the greatest number of students that could be in each row?

Answer the questions below then return to these 2

1. Find the factors of 18
2. What is a prime number?
3. Use your calculator to write 18 as a product of Prime Factors
4. Take them in groups and find the product of the numbers



1 number	2 numbers	3 numbers
2 =	2 x 3 =	2 x 3 x 3 =
3 =	3 x 3 =	
3 =		

5. What can you say about the answers of these numbers?
6. Are there any factors missing?
7. Find the factors of 30
8. Use your calculator to write 30 as a product of prime factors
9. Take them in groups and find the product of the numbers

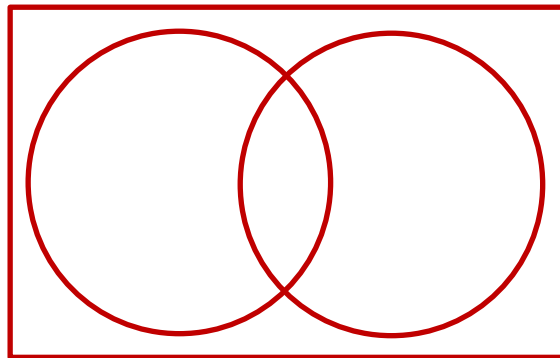
1 number	2 numbers	3 numbers

10. What can we say about these numbers

11. Write out the factors of both 18 and 30.
12. Write out the Highest Common factor
13. Find the prime factors of this number
14. Can you say anything about these factors?
15. Write out the first seven multiples of 18 and 30
16. Which is the Lowest Common Multiple?
17. Find the Prime factors of this number
18. Can you say anything about these factors?
19. Write out the Prime factors of 18 and 30 as a set, repeating factors if required

$$18 = \{ \quad , \quad , \quad \} \quad 30 = \{ \quad , \quad , \quad \}$$

Complete the Venn diagram below



20. What can you say about the intersection of the Venn diagram?

21. What can you say about the union of the Venn diagram?