

Let's review probability:

**A coin is tossed 100 times, and each times it lands on heads.
What is the probability the coin will land on heads the next toss?**



WHAT IS LEAST COMMON MULTIPLE?? How does it apply to George Bank's situation?



The Least Common Multiple (LCM)

What is the least common multiple?

The least common multiple is the smallest number (not including zero or one) that two or more numbers share.

Example: What is the LCM of 3 and 4?

Multiples of 3: 3, 6, 9, 12, 15, 18...

Multiples of 4: 4, 8, 12, 16, 20...

The LCM of 3 and 4 is 12.



The Least Common Multiple (LCM)

Methods:

- 1) list all the multiples of each number and find the smallest of them that match

ex. 6 and 8

6 - 6, 12, 18, 24, 30, 36

8 - 8, 16, 24, 32

- 2) finding all the prime factors

ex. 16

$$16 = 2 \times 2 \times 2 \times 2$$

18

$$18 = 2 \times 3 \times 3$$

$$\text{LCM} = 2 \times 2 \times 2 \times 2 \times 3 \times 3 = 144$$



3) Staircase Method

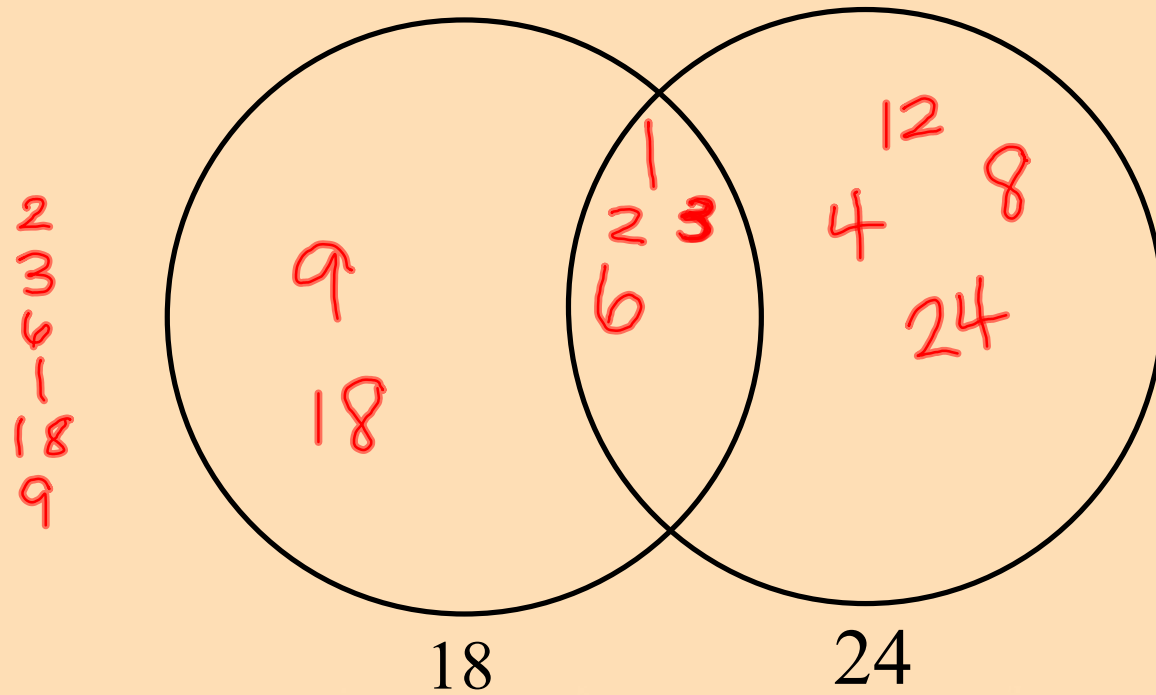


Staircase with 3 numbers...

2	20	30	90
5	10	15	45
3	2	3	9
	2	1	3



4) Using a Venn Diagram



Find the LCM of the following number groupings.

32 and 12

20 15 and 30

8 and 15

18 40 and 30

8 and 16

24 and 6



**Click here for
more practice!**

[click here for example
of Number Theory
Project](#)

