Gabriels Problem

2	3	4	24
5	1	8	40
6	7	9	378
60	21	288	

One method you can work out Gabriels problem is that you can write out the factors of one of the numbers and then write out the other factors of numbers which are on the other rows and circle the similar factors.
eg. 24 and 21.

as 21 is an odd number it cannot have '2' in it's row.

24's factors:

(1), 2, (3), 4, 6, 8, 12, 24

21's factors:

(1), (3), 7, 21

- as 21 has little factors we are forced to use all of them except 21 as it is too great
- as 3 is a factor of both 21 and 24 we know that 3 will go in the box that links 21 and 24.
- we know for sure that it is 3 and not any other number as 21 has not got many factors.
- also 24, although many factors cannot have a number that is larger than 4 as there are only 3 spaces so it would be logical to use lower numbers.
- you can use other numbers using this method to work out what is in other boxes.
- you can also work out 'Gabriels problem by seeing which numbers have prime numbers in their factors as prime factors are more rare than other numbers factors.