



1) 1×1	1^2	1	•	6×6	6^2	36	
2×2	2^2	4	••	7×7	7^2	49	
3×3	3^2	9	•••	8×8	8^2	64	
4×4	4^2	16	••••	9×9	9^2	81	
5×5	5^2	25	•••••	10×10	10^2	100	

- 2) A square number is the product of a number and itself. The product can be shown as a square array hence the name.
- 3) The square numbers alternate between odd and even.
The difference between consecutive square numbers is odd and follows the pattern 3, 5, 7, 9, 11 and so on.

- 1) Jess is incorrect. 7^2 is the same as 7×7 which is 49. Jess has calculated 7×2 .
- 2) a) True. The product of two even numbers is always even.
For example, $4 \times 4 = 16$, $6 \times 6 = 36$.
- b) False. Square numbers have an odd number of factors as they are the result of the number being multiplied by itself. For example, the factors of 16 are 1, 2, 4, 8 and 16.
- c) True. For example, $1 \times 4 = 4$, $9 \times 4 = 36$.



- 1) $9 + 16 = 25$ and $36 + 64 = 100$
- 2) $4 + 9 + 36 = 49$ and $1 + 16 + 64 = 81$
- 3) There are many possible solutions, such as:
 - $1 + 16 > 16 - 9$
 - $1 + 16 > 16 - 4$
 - $1 + 25 > 25 - 16$
 - $1 + 25 > 25 - 9$
 - $1 + 25 > 25 - 4$
 - $16 + 4 > 4 - 1$
 - $25 + 81 > 81 - 64$
 - $36 + 49 > 49 - 16$

