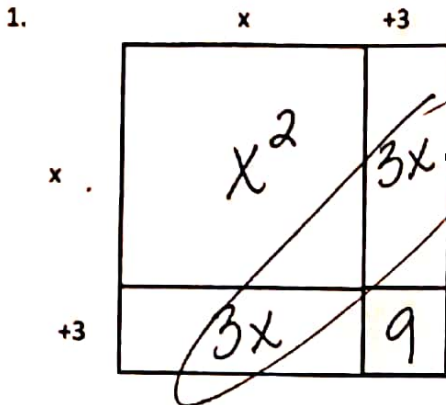


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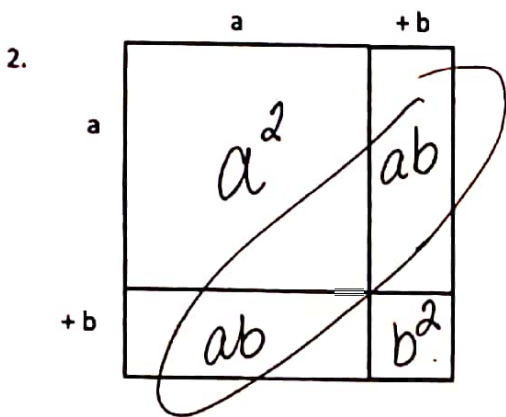
### Special Products

Fill in the following areas with the product. Combine like terms and write the answer.



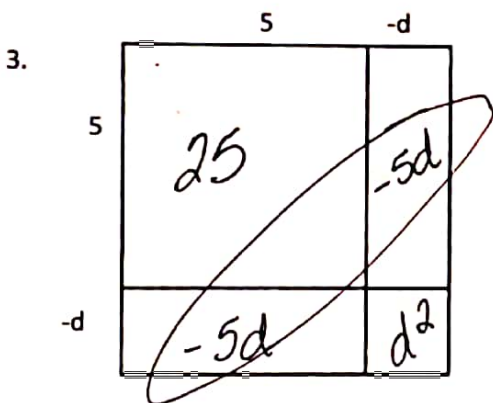
$$(x+3)(x+3) = (x+3)^2$$

Answer:  $x^2 + 6x + 9$



$$(a+b)^2$$

Answer:  $a^2 + 2ab + b^2$



$$(5-d)^2$$

Answer:  $25 - 10d + d^2$

What pattern did you find?

Square, multiply then double, square

Multiply the following.

4.  $(x+7)(x+7) = x^2 + 14x + 49$

5.  $(2x+5)(2x+5) = 4x^2 + 20x + 25$

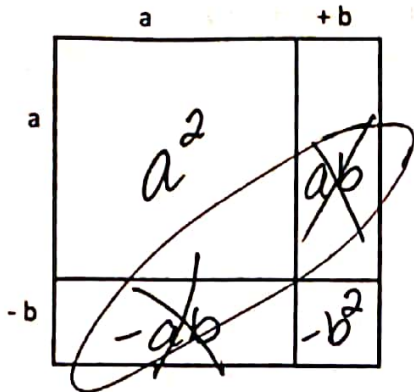
6.  $(x+4)^2 = x^2 + 8x + 16$

7.  $(3b-4c)^2 = 9b^2 - 24bc + 16c^2$

## Special Products

Fill in the following areas with the product. Combine like terms and write the answer.

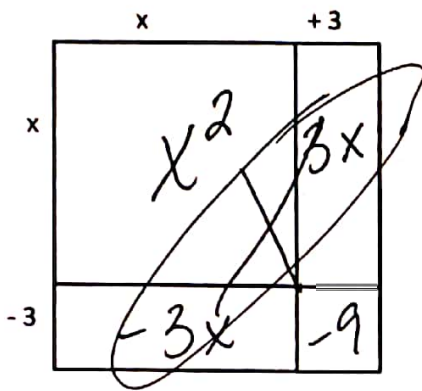
8.



$$(a+b)(a-b)$$

Answer:  $a^2 - b^2$

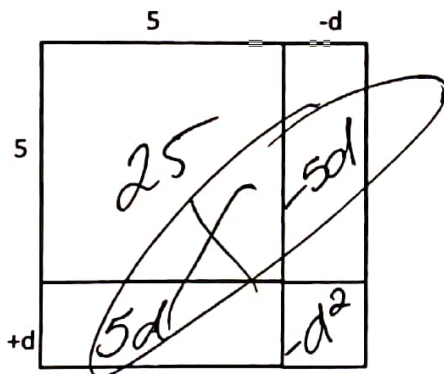
9.



$$(x+3)(x-3)$$

Answer:  $x^2 - 9$

10.



Answer:  $25 - d^2$

What pattern did you find?

square, cancel, square

Multiply the following.

11.  $(x+7)(x-7) =$   $x^2 - 49$

12.  $(2x-5)(2x+5) =$   $4x^2 - 25$

13.  $(x-4)(x+4) =$   $x^2 - 16$

14.  $(3b-4c)(3b+4c) =$   $9b^2 - 16c^2$