

The Factoring Frenzy Challenge

You've been presented with five expressions to factor. Each expression is in the form $a^2 - b^2$, where a and b are integers. Your task is to factor each expression completely.

Expression 1:

$$25x^2 - 16y^2$$

Expression 2:

$$64a^2 - 49b^2$$

Expression 3:

$$9m^2 - 4n^2$$

Expression 4:

$$16p^2 - 81q^2$$

Expression 5:

$$100x^2 - 121y^2$$

ANSWERS:

Expression 1:

$$(5x + 4y)(5x - 4y)$$

Expression 2:

$$(8a + 7b)(8a - 7b)$$

Expression 3:

$$(3m + 2n)(3m - 2n)$$

Expression 4:

$$(4p + 9q)(4p - 9q)$$

Expression 5:

$$(10x + 11y)(10x - 11y)$$