

FACTORIZING WITH DIFFERENCE OF TWO SQUARES (DOTS)



A little TBT. Remember this?

$$(x-4)(x+4)$$
$$x^2-16$$

$$(x+5)(x-5)$$
$$x^2-25$$

$$(2x-3)(2x+3)$$
$$4x^2-9$$

How would you UN-DISTRIBUTE/FACTOR?

In order to use DOTS you need:

1. perfect squares
2. difference

General Form:

$$a^2 - b^2 = (a+b)(a-b)$$

Try these:

$$4x^2 - 25$$
$$(2x+5)(2x-5)$$

$$x^2 - 1$$
$$(x+1)(x-1)$$

$$49x^2 - 81$$
$$(7x+9)(7x-9)$$

Are you ready for something a little more difficult?

$$1 - y^2$$
$$(1-y)(1+y)$$

$$36 - c^2$$
$$(6+c)(6-c)$$

$$121 - 81x^2$$
$$(11+9x)(11-9x)$$

How about that GCF thing?

$$4x^2 - 64$$

$$4(x^2 - 16)$$

$$4(x+4)(x-4)$$

$$9x^2 - 81$$

$$9(x^2 - 9)$$

$$9(x+3)(x-3)$$

$$5x^2 - 80$$

$$5(x^2 - 16)$$

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