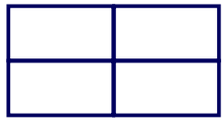
4.6 Mulitplying & Factoring Difference of Squares

A. Multiplying Two Binomials (DoS)

1. $(x+3)(x-3)$

$= x^2 - 3x + 3x - 9$

$= x^2 - 9$



2. $(x+5)(x-5)$

Look for patterns!!!

SKIP



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

SKIP



Look for patterns!!!

4. $(2x+1)(2x-1)$

$= 4x^2 + 2x - 2x - 1$

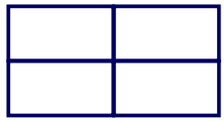
$= 4x^2 - 1$



5. $(3x-5)(3x+5)$

$= (3x)^2 - 5^2$

$= 9x^2 - 25$



6. $(3x-2)(3x+2)$

SKIP



7. $(2x+5y)(2x-5y)$

SKIP



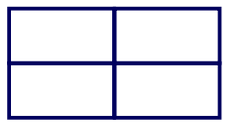
8. $(5x-4y)(5x+4y)$

SKIP

Look for patterns!!!

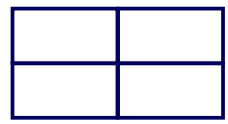
9. $(2x^2-3y^4)(2x^2+3y^4)$

$= 4x^4 - 9y^8$



10. $(x^2-3y)(x^2+3y)$

$= x^4 - 9y^2$



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B. Factoring a Difference of Squares

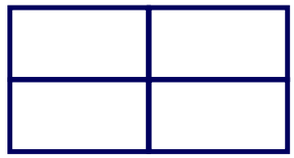
two perfect square numbers with a difference between them

1. $x^2 - 9$

$\sqrt{x^2}$? ✓

$\sqrt{9}$? ✓

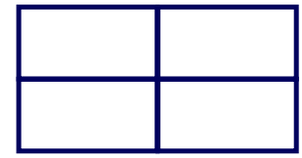
$=(x+3)(x-3)$



2. $9x^2 - 16$

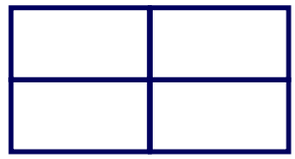
$=(3x-4)(3x+4)$

Look for patterns!!!



3. $25x^2 - 81$

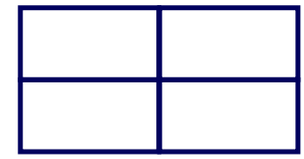
$=(5x+9)(5x-9)$



Look for patterns!!!

4. $9x^2 - 1$

$=(3x+1)(3x-1)$



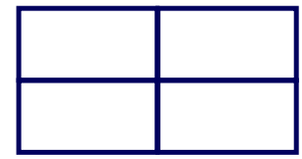
5. $4x^2 - 25$

SKIP



6. $4x^2 - 81y^2$

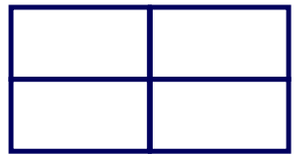
$=(2x+9y)(2x-9y)$



7. $49x^2y^2 - 100z^2$

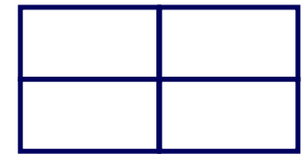
$=(7xy-10z)(7xy+10z)$

Look for patterns!!!



8. $36x^4 - 121y^2z^2$

$=(6x^2-11yz)(6x^2+11yz)$



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