Let's ~~look~~ at expanding first:

$(5n-3)(5n+3)$

$= 25n^2 + 15n - 15n - 9$

$= 25n^2 - 9$

$(7x-4)(7x+4)$

$= 49x^2 + 28x - 28x - 16$

$= 49x^2 - 16$

In the examples above, try figuring out how to work backwards from the last step to the first step.

Difference of Squares– the polynomial must be a _____

– the 1st and 2nd terms must be perfect squares

– there must be a _____ sign between the two terms

Unknown Author
binomial

Unknown Author
minus

In the examples above, try figuring out how to work backwards from the last step to the first step.

Difference of Squares– the polynomial must be a binomial
- the 1st and 2nd terms must be perfect squares
- there must be a minus sign between the two terms

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binomial

Unknown Author
minus

$49n^2 - 4$

$\sqrt{49} = 7$

$\sqrt{4} = 2$

$= (7n - 2)(7n + 2)$

$x^2 - 25$

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

$\sqrt{1} = 1$

$\sqrt{25} = 5$

$75n^4 - 27$

$\sqrt{75}$

$\sqrt{27} =$

∴ not factorable

4. $6m^2 - 150$

$6 \quad 6$

$= 6(1m^2 - 25)$

$= 6(m - 5)(m + 5)$

$\sqrt{1} = 1$

$\sqrt{25} = 5$

5. $20x^2 - 7x - 6$

6. $7v^2 + 34v - 5$

7. $4x^2 - 12xy - 27y^2$