Name _____ Date_____

UNIT 7 **LESSON 3**

DO NOW

1. Simplify: $(x+3)(x-3)$	2. Simplify: $(4-y)(4+\mathrm{y})$

Aim: How do we factor using the D.O.T.S method?

3. Identify the first 17 perfect squares starting with 1

4. Identify the first 12 perfect variables.

Any variable with an _____ exponent is a perfect square.

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How do I identify DOTS?

$$a^2 - b^2$$

#	Question	Check
5.	$x^2 - 16$	

Steps for Factoring D.O.T.S :

1) two perfect squares with subtraction sign (binomial)
2) "Double Bubble" with opposite signs (+)(-)
3) Find square root of each term in order.
4) Check by Double Distributing (shortcut!)

6.	$100 - y^2$	
7.	$81x^2 - 64y^4$	
8.	$0.16y^2 - 9$	

9. $4x^6 - 25y^{12}$

10. $9x^2 - 1$

11. $25x^{16} - 36y^{100}$

12. $y^2 - \frac{16}{49}$

13. Which expression is equivalent to $121 - x^2$?

1) $(x - 11)(x - 11)$

2) $(x + 11)(x - 11)$

3) $(11 - x)(11 + x)$

4) $(11 - x)(11 - x)$

14. Ann correctly factors an expression that is the difference of two perfect squares, her factors could be

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

2) $(2x + 3y)(2x - 3y)$

3) $(x - 4)(x - 4)$

4) $(2y - 5)(y - 5)$

GCF & DOTS Mixed!

15. $3x-3y$	16. $4x^2-9$
17. $16x^2-6x^3$	18. x^2-16
19. x^2-y^2	20. Which polynomial cannot be factored? a) $3x + 9y$ b) $x^2 - 225$ c) $2x^2 – 4x –6$ d) $4x^2 + 25$