

## 8-7B: Factoring Trinomials: Difference of Squares

**Due next class: p.409 #1-10 (Checkpoint Quiz 2)**

**Due Today: p.401 #14-20 even; p.407#1-7 odds; #13-17 odds**

14.  $(4y+1)(2y-3)$

16.  $(7x+1)(x-3)$

18.  $(5k-7)(k+1)$

20.  $(4d+5)(3d-4)$

1.  $(c+5)(c+5)$

3.  $(h+6)(h+6)$

5.  $(k-8)(k-8)$

7.  $(2m+5)$

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

15.  $(k+14)(k-14)$

17.  $(h+10)(h-10)$

## Chapter 8 Test on Friday

*Missing Chapter 8 Quiz*

Period 3:

Andrea A.    Luis A.

Nate C.    Andrea H.

**Factor each expression.**

1.  $2n^2 + 15n + 7$

2.  $7d^2 + 50d + 7$

3.  $11w^2 - 14w + 3$

4.  $3x^2 - 17x + 10$

5.  $6t^2 + 25t + 11$

6.  $3d^2 - 17d + 20$

7.  $16m^2 + 26m + 9$

8.  $15p^2 - 26p + 11$

9.  $8y^2 + 30y + 13$

10.  $2y^2 + 35y + 17$

11.  $7x^2 - 30x + 27$

12.  $8x^2 + 18x + 9$

13.  $2t^2 - t - 3$

14.  $8y^2 - 10y - 3$

15.  $2q^2 - 11q - 21$

16.  $7x^2 - 20x - 3$

17.  $13p^2 + 8p - 5$

18.  $5k^2 - 2k - 7$

19.  $10w^2 + 11w - 8$

20.  $12d^2 - d - 20$

21.  $14n^2 + 23n - 15$

14.  $8y^2 - 10y - 3$

$\begin{array}{r} -24 \\ -12 \quad 2 \\ -10 \end{array}$

	$4y$	$1$
$2y$	$8y^2$	$2y$
$-3$	$-12y$	$-3$

$(2y - 3)(4y + 1)$

**Factor each expression.**

$$(c+5)(c+5) = (c+5)^2$$

$$x \cdot x = x^2$$

1.  $c^2 + 10c + 25$

2.  $x^2 - 2x + 1$

3.  $h^2 + 12h + 36$

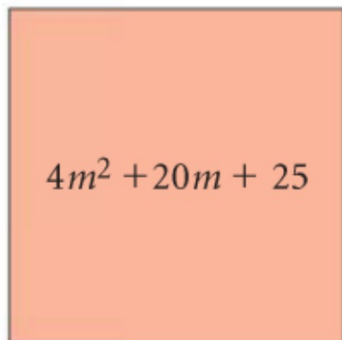
4.  $m^2 - 24m + 144$

5.  $k^2 - 16k + 64$

6.  $t^2 - 14t + 49$

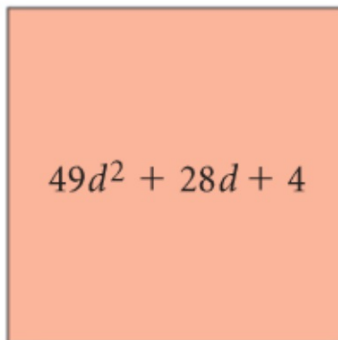
**The given expression represents the area. Find the side length of each square.**

7.



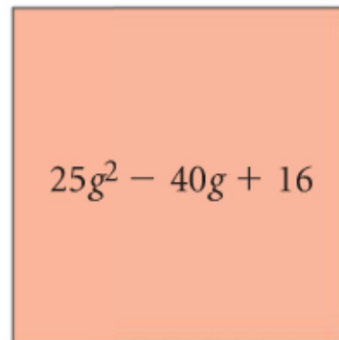
$$4m^2 + 20m + 25$$

8.



$$49d^2 + 28d + 4$$

9.



$$25g^2 - 40g + 16$$

13.  $x^2 - 4$

14.  $y^2 - 81$

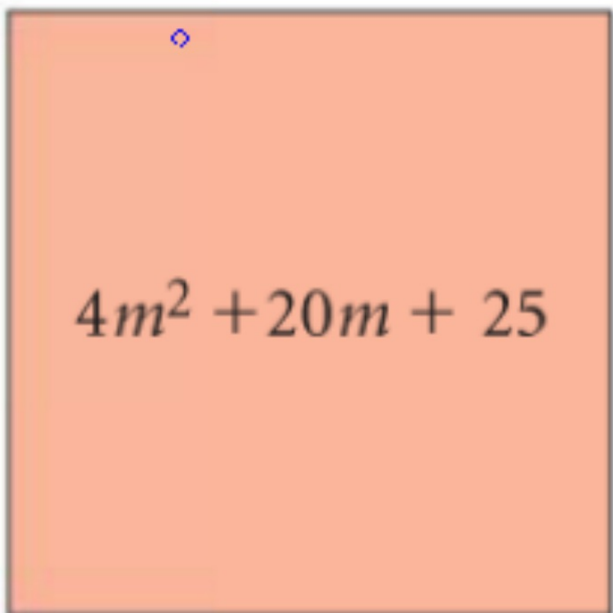
15.  $k^2 - 196$

16.  $r^2 - 144$

17.  $h^2 - 100$

18.  $m^2 - 225$

7.


$$4m^2 + 20m + 25$$

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

17.  $h^2 - 100$

$$h^2 - 10^2 = (h+10)(h-10)$$

17.  $h^2 - 100$

$$h^2 + 0x - 100$$

$$(h+10)(h-10)$$

$$a = 1$$

$$b = 0$$

$$c = -100$$

$$\begin{array}{c} -100 \\ +10 \quad -10 \\ 0 \end{array}$$

## Difference of Squares

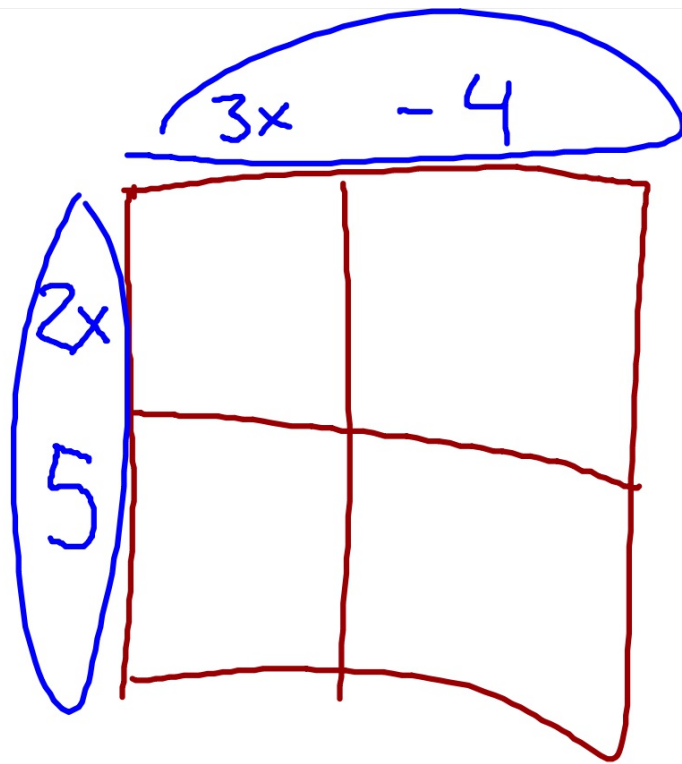
$$x^2 - 16 \quad \longrightarrow \quad x^2 + 0x - 16$$

## **Special Cases - Difference of Squares**

$$\mathbf{a^2 - b^2 = (a + b)(a - b)}$$

$$\mathbf{4x^2 - 25}$$

$$\mathbf{100x^2 - 9}$$



**Simplify each expression.**

1.  $(k - 7)^2$

2.  $(5t + 9)^2$

3.  $(h - 11)(h - 11)$

4.  $(x^3 - 2y)(5x^2 + y^2)$

**Factor each expression.**

5.  $v^2 + 20v + 100$

6.  $k^2 - 17k + 60$

7.  $2x^2 + 13x + 11$

8.  $10m^2 + 19m + 7$

9.  $3w^2 - 6w - 24$

10.  $9t^2 - 25$