

HW SECTION 11.1

Name _____

Worksheet: Factoring Perfect Square Trinomials

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Factor each completely. (All are factorable.)

1) $16x^2 + 40x + 25 = (4x + 5)^2$

	$4x$	5
$4x$	$16x^2$	$20x$
	$20x$	25

3) $121m^2 - 198m + 81 = (11m - 9)^2$

	$11m$	-9
$11m$	$121m^2$	$-99m$
	$-99m$	81

5) $100b^2 - 180b + 81 = (10b - 9)^2$

	$10b$	-9
$10b$	$100b^2$	$-90b$
	$-90b$	81

7) $25n^2 - 40n + 16 = (5n - 4)^2$

	$5n$	-4
$5n$	$25n^2$	$-20n$
	$-20n$	16

9) $36x^2 - 60x + 25 = (6x - 5)^2$

	$6x$	-5
$6x$	$36x^2$	$-30x$
	$-30x$	25

11) $25k^2 - 80k + 64 = (5k - 8)^2$

	$5k$	-8
$5k$	$25k^2$	$-40k$
	$-40k$	64

13) $4n^2 - 28n + 49 = (2n - 7)^2$

	$2n$	-7
$2n$	$4n^2$	$-14n$
	$-14n$	49

15) $121n^2 - 110n + 25 = (11n - 5)^2$

	$11n$	-5
$11n$	$121n^2$	$-55n$
	$-55n$	25

2) $36v^2 - 132v + 121 = (6v - 11)^2$

	$6v$	-11
$6v$	$36v^2$	$-66v$
	$-66v$	121

4) $49p^2 - 28p + 4 = (7p - 2)^2$

	$7p$	-2
$7p$	$49p^2$	$-14p$
	$-14p$	4

6) $25x^2 + 110x + 121 = (5x + 11)^2$

	$5x$	11
$5x$	$25x^2$	$55x$
	$55x$	121

8) $144x^2 + 264x + 121 = (12x + 11)^2$

	$12x$	11
$12x$	$144x^2$	$132x$
	$132x$	121

10) $4a^2 - 36a + 81 = (2a - 9)^2$

	$2a$	-9
$2a$	$4a^2$	$-18a$
	$-18a$	81

12) $r^2 - 22r + 121 = (r - 11)^2$

	r	-11
r	r^2	$-11r$
	$-11r$	121

14) $100n^2 - 60n + 9 = (10n - 3)^2$

	$10n$	-3
$10n$	$100n^2$	$-30n$
	$-30n$	9

16) $x^2 + 24x + 144 = (x + 12)^2$

	x	12
x	x^2	$12x$
	$12x$	144