Bellwork Alg 2 Wednesday, October 10, 2018

1. Write in Standard Form: $y = (x-4)^2 - 13$

2. Simplify. $(2+3i)^3$

3. Fill in the blanks to complete the square.

a) $x^2 + 26x$_____ = (_____)^2

b) $x^2 - 11x$_____ = (_____)^2

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ANSWERS

1. Write in Standard Form: $y = (x-4)^2 - 13$

$y = (x-4)^2 - 13$

$y = x^2 - 8x + 16 - 13$

$y = x^2 - 8x + 3$

2. Simplify. $(2+3i)^3$

$(2+3i)(2+3i)(2+3i)$

	2	$+3i$
2	4	$+6i$
$+3i$	$+6i$	$+9i^2 = -9$

$-5+12i$

$(-5+12i)(2+3i)$

	-5	$+12i$
2	-10	$+24i$
$+3i$	$-15i$	$+36i^2 = -36$

$-46+9i$

3. Fill in the blanks to complete the square.

a) $x^2 + 26x$ $+169$ $= (x+13)^2$

b) $x^2 - 11x$ $+\frac{121}{4}$ $= (x-\frac{11}{2})^2$