$\qquad$
$\qquad$

## Quiz Review 5.7 \&5.9

## Graph each inequality and shade the solution region.

1. $y<x^{2}-2 x+3$

2. $y \geq-x^{2}+4 x-5$


Solve each inequality by using algebra.
3. $x^{2}+x-8 \leq-6$
4. $x^{2}+10 x+25>9$

Find each absolute value.
5. $|6+2 i|$
6. $|3+i|$
7. $|3-4 i|$

Add or subtract. Write the result in the form a+bi.
8. $(4 i)+(2+8 i)$
9. $(1+2 i)+(3+4 i)$
10. $(2-7 i)-(5-3 i)$
$\qquad$
$\qquad$

Multiply. Write the result in the form a + bi.
11. $2 i(3+5 i)$
12. $(3+i)(1-4 i)$
13. $(1+2 i)(2+5 i)$

## Simplify.

14. $\frac{2+5 i}{3 i}$
15. $\frac{8+2 i}{1-3 i}$
