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Give complete solutions to the following problems be sure to provide all the necessary steps to support your answers.

1. Write the complex number in standard form

$$
3+\sqrt{-12}
$$

Ans $\qquad$
2. Write the complex number in standard form

Ans $\qquad$ $3 i^{2}-2 i$
3. Perform the addition and write the result in standard form $(2+3 i)+(-2-2 i)$

Ans $\qquad$
4. Perform the multiplication and write the result in standard form

Ans $\qquad$ $(2+i)(2-3 i)$
5. Perform the division and write the result in standard form.

Ans $\qquad$ $5 \div 2 i$
6. Write the quotient in standard form

$$
\frac{2+i}{3+2 i}
$$

Ans $\qquad$
7. Perform the operation and write the result in standard form $\frac{i}{2-i}+\frac{2}{2+i}$
8. Use the Quadratic Formula to solve the quadratic equation. $2 x^{2}-4 x+3=0$
9. Solve the given quadratic equation by completing the square $2 x^{2}+4 x=-3$
10. Find a polynomial of degree 3 with the given zeros and containing the point:
$x=2, x=1+i,(1,1)$

Ans $\qquad$

Ans $\qquad$

Ans $\qquad$

Ans $\qquad$

