hw-04b-quadratic-equation-in-complex-form

Due: **12/12/2015 at 06:00am EST.**

Students will be able to:

- Solve Quadratic Equations in the Complex Domain

Functions and symbols that WeBWorK understands.

Links to some useful WeBWorK pages for students

1. (1 pt) Solve the following equation:

$$x^2+4=0$$

Feel free to use complex numbers in the form $a+bi$ if necessary

Your solution(s) are _____.
If there are several solutions, enter those separated by commas.

2. (1 pt) Solve the following equation:

$$x^2+4x+40=0$$

Feel free to use complex numbers in the form $a+bi$ if necessary

Your solution(s) are _____.
If there are several solutions, enter those separated by commas.

3. (1 pt) Solve the following equation:
$x^2-8x+22=0$

The roots are: $x=$ _____

Notes:
(i) feel free to use complex numbers if needed
(ii) use fractions in your answer, not decimals

4. (1 pt) Solve the following equation:
$81x^2-72x+65=0$

The solutions are $x=$ _____

Notes:
(i) feel free to use complex numbers if needed
(ii) use fractions in your answer, not decimals

5. (1 pt) Solve the following equations for z, find all solutions :
(1) $2z^2+z+3=0$
Place all answers in the following blank, separated by commas:
_____
(2) $z^2-(3-2i)z+1-3i=0$
Place all answers in the following blank,separated by commas:
_____
(3) $z^2-2z+i=0$
Place all answers in the following blank, separated by commas:
_____