

MAT 171 - Section 1.4: Homework

Read sections 1.4, 1.5, and 1.6, Complete all MyMathLab exercises

Simplify each of the following expressions and write in standard form:
 $(a + bi)$

1) $(7 + 2i) + (1 - 4i)$

2) $6 - (-5 + 4i) - (-13 - i)$

3) $8i - (14 - 9i)$

4) $-3i(7i - 5)$

5) $(7 - 5i)(-2 - 3i)$

6) $(3 + 5i)(3 - 5i)$

7) $(2 + 3i)^2$

8) $\frac{2}{3-i}$

9) $\frac{2i}{1+i}$

10) $\sqrt{-64} - \sqrt{-25}$

11) $5\sqrt{-16} + 3\sqrt{-81}$

12) $(-3 - \sqrt{-7})^2$

13) $\frac{-8 + \sqrt{-32}}{24}$

14) $\sqrt{-8}(\sqrt{-3} - \sqrt{5})$

15) $(3\sqrt{-5})(-4\sqrt{-12})$
