

## Chapter 6 Test Review

Simplify completely

①  $\frac{\sqrt{100}}{\sqrt{3}}$     ②  $\sqrt{64} + 2\sqrt{8}$     ③  $2i^8$     ④  $i^{64}$     ⑤  $\sqrt{-25} + \sqrt{-16}$

⑥  $\sqrt{-64} \cdot \sqrt{-4}$     ⑦  $(2-3i)(7+4i)$     ⑧  $3(6-2i) + 4i(-3+i)$

⑨  $(6-2i) - (-3+i)$     ⑩  $\frac{7}{3i}$     ⑪  $(3-7i)^2$     ⑫  $(3-i)(4+5i)$

⑬  $\frac{7}{3-i}$     ⑭  $\frac{3-i}{7+3i}$     ⑮ Solve  $x^2 + 144 = 0$     ⑯ Solve for  $x$ .  
 $\sqrt{3x+1} = 7$

⑰ Plot the following as a point on the complex plane:

$$w = 3 + 9i$$

$$z = 6 - i$$

$$w + z$$

$$w - z$$