The references to examples in the textbook are given as well: review as needed before you repeat the self-test. The test could include any of the similar homework problems from these sections: it will NOT just change the numbers in these problems.

NOTE: Please DO NOT use set notation when reporting your solutions to equations: just write the solutions as I have done below.

Self-Test:
   Part A:

1) $x^{\frac{5}{3}}$
   Section 6.2 Example 4

2) $\frac{1}{125}$
   Section 6.2 Example 3

3) $24\sqrt{10}$
   Section 6.5 Example 1

4) Use the perfect square of a binomial pattern: $(A - B)^2 = A^2 - 2AB + B^2$
   Answer (after simplifying): $43 - 30\sqrt{2}$
   Section 6.5 Example 6

5) Use the difference of squares pattern: $(A - B)(A + B) = A^2 - B^2$
   Answer (after simplifying): 17
   Section 6.5 Example 7

   In #6-7: Rationalize the denominator and simplify: use the difference of squares pattern where appropriate

6) $\frac{2\sqrt{7}+2}{3}$ or, better, $\frac{2+2\sqrt{7}}{3}$
   Section 6.6 Example 7

7) $\frac{3\sqrt{5}-2\sqrt{3}}{11}$
   Section 6.6 Example 7

––

   Part B:

8) Solution: $x = 2$
   Section 6.7 Examples 1, 4

9) $y = -\frac{99}{14}$
   Section 6.7 Examples 1, 4

   Part C:

10) $-16 + 8i$
   Section 6.8 Example 5

11) $-32 + 4i$
   Section 6.8 Example 6

12) $\frac{10}{13} + \frac{15}{13}i$
   Section 6.8 Example 7

Part D:

13) $x(x - 17) = 0$

Solution: (after some work) $x = 0$ or $x = 17$

Section 7.1 Examples 3, 4: Make sure that you are using this method!

14) First solve it for x^2: you should get (after a bit of work)

$x^2 = -24$

Then use the square root property and simplify: the final result is

$x = \pm 2i\sqrt{6}$

Section 7.1 Examples 1, 2, 3: make sure that you are using this method!