

## Review Test 1 Chapter 7

**Section 7.1**

Textbook page 489: #21 – 55 odd, #75 – 97 odd

**Sections 7.2 , 7.3, 7.4, 7.6 & 7.7**

Textbook: all homework problems .

**Section 7.5**

Textbook page 528: #1 – 81 e.o.o., 89, 93, 101, 113, 115, 143

**Study Quiz #1,2, and 3.**

1. Simplify:

a)  $\frac{9 - \sqrt{-72}}{12}$

b)  $\frac{2 + \sqrt{-8}}{2}$

c)  $\frac{-4 + \sqrt{-28}}{6}$

2. Simplify the following expressions. The final answer should have only positive exponents.

a)  $\frac{6^{\frac{5}{6}}}{6^{\frac{1}{2}}} + 6^{\frac{1}{3}}(6^{-\frac{1}{2}})$

b)  $\left(\frac{2x^{-4}y}{x^5y^5}\right)^{-3} \left(\frac{4x^{-2}y^0}{x^7y^2}\right)^2$

c)  $\frac{(-2x^2y^3)^2(3x^4y^5)^3}{(2x^2)^6(3y^8)}$

d)  $\left(\frac{2x^{\frac{1}{2}}y}{x^{\frac{5}{2}}y^{-\frac{1}{3}}}\right)^{\frac{2}{3}}$

3. Write each expression in simplest form:

a)  $\sqrt{18u^3v^8} + 3v\sqrt{30u^5}$

b)  $2\sqrt{75} + 4\sqrt{12} - (2\sqrt{2} - \sqrt{3})(2\sqrt{2} + \sqrt{3})$

c)  $(3\sqrt{5} - 4)^2 + 2\sqrt{45}(5 - \sqrt{5})$

d)  $-(3 + 2x)i - 2(2x - 3i)^2$