

Math 1010**January 16, 2019****Homework 2**

Read section 1.3 of your text.

1. Write as a radical: $x^{\frac{3}{5}}$

2. Write using exponents: $\sqrt[4]{x^7}$

3. Simplify: $\sqrt[3]{x^7 y^{12}}$

4. Simplify: $\sqrt[3]{x} \sqrt{x}$

5. Simplify: $\sqrt[4]{x^{26} y^{40} z^{101}}$

6. Rationalize the denominator: $\frac{1}{\sqrt{5}}$

7. Rationalize the denominator: $\frac{1}{1 + \sqrt{7}}$

8. Rationalize the denominator: $\frac{\sqrt{2}}{3 - \sqrt{5}}$

9. Simplify the following

a. $\sqrt{800}$

b. $\sqrt{\frac{49}{64}}$

c. $\sqrt{16y^4}$

d. $x^{3/2}\sqrt{x}$

e. $\sqrt[3]{8x^{12}}$

f. $\sqrt[5]{x^{20}}$

g. $\sqrt[3]{x}\sqrt[5]{x^2}$