MAC1105 Section 1A26
Quiz 3

Please show all of your work in a NEAT and ORGANIZED fashion.

1. (4 points) Simplify the expression and write your answer using only positive exponents.

\[
\frac{(-3x^2y)^{-2}x^{-4}y^2}{xy^7} = \\
\frac{(-27x^6y^3)^{-4}y^2}{x^5} = \\
\frac{-27x^2y^{-5}}{xy^{-4}} = \\
-27x^{2-1}y^{-2} = \frac{-27x}{y^2}
\]

2. (3 points) Write in radical form and evaluate.

\[
(27)^{1/3} = \\
\left(\sqrt[3]{27}\right)^4 \text{ or } 3\sqrt[4]{27}^4 = \left(\text{either form}\right)\text{ is okay}
\]

\[
3^4 = 81
\]

3. (3 points) Simplify the expression using the rules for radicals.

\[
(\sqrt{20} - \sqrt{5}) + \sqrt{16} = \\
\sqrt{20} + 4\sqrt{16} = \text{ OR } \sqrt{20} + 4 = \\
\sqrt{100} + 2 = \text{ OR } \sqrt{100} + 2 = \\
10 + 2 = 12 \text{ OR } 10 + 2 = 12
\]