Math 20-2   **Name:** _____

Radical Review (Quiz 2 September 2019)

Rewrite each question to allow you space to show your work.

1. Express as a radical in simplest form.

   a) $\sqrt{72}$

   b) $\sqrt[3]{72}$

2. Express as a whole radical.

   a) $2\sqrt{5}$

   b) $5\sqrt[3]{2}$

3. Write the expression in simplest form.

   a) $4\sqrt{5} + 7\sqrt{10} - 7\sqrt{5}$

   b) $4\sqrt{18} + \sqrt{27} + 4\sqrt{3}$

   c) $\sqrt[3]{24} - 5\sqrt{24} - 2\sqrt{54}$

4. Express each product in simplest form.

   a) $2\sqrt{10}(3\sqrt{2} + \sqrt{5})$

   b) $(7\sqrt{3} - \sqrt{6})(\sqrt{3} - 2\sqrt{6})$

5. Simplify each expression – rational denominators in simplest form.

   a) $\dfrac{15\sqrt{21}}{3\sqrt{7}}$

   b) $\dfrac{3\sqrt{12}}{2\sqrt{5}}$

   c) $\dfrac{12\sqrt{10} + 8\sqrt{5}}{4\sqrt{2}}$