NAME: _____   DATE: _____

RADICALS REVIEW WORKSHEET

      ○   **Complete on separate paper.**
      ○   **Copy the original problem.**
      ○   **Show your work.**   <u>**DO NOT USE A CALCULATOR!**</u>

1.   Simplify by multiplying: (Write your answers in simplest form.)

A) $\left(3\sqrt{5}\right)\left(8\sqrt{2}\right)$ B) $\left(2\sqrt{6}\right)\left(\sqrt{3}\right)$ C) $\left(-5\sqrt{10}\right)\left(-6\sqrt{15}\right)$

2.   Write all radicals in simplest form, then simplify by adding or subtracting:

A) $2\sqrt{27}+5\sqrt{3}$ B) $2\sqrt{20}-\sqrt{500}$

3.   Simplify by rationalizing the denominators: (Write your answers in simplest form.)

A) $\dfrac{2}{\sqrt{3}}$ B) $\dfrac{5\sqrt{12}}{2\sqrt{5}}$ C) $\dfrac{\sqrt{3}}{5\sqrt{6}}$

4.   Divide the following radical and complex numbers.

a) $\dfrac{3}{2-2\sqrt{5}}$ b) $\dfrac{-4+2\sqrt{5}}{3+2\sqrt{3}}$ c) $\dfrac{5+2i}{-3-5i}$ d) $\dfrac{8-3i}{1-i}$