Instructions: Show all your work in order to receive credit.

Problem 1. (4 points) Evaluate the following, if there are no real solutions, then say so.

(a) $\sqrt{81}$

(c) $-\sqrt{81}$

(b) $\sqrt{-81}$

(d) $\left(\sqrt{81}\right)^2$

Problem 2. (1.5 points each) Give the domain of the functions.

(a) $f(x) = \sqrt[101]{x}$

(b) $d(x) = \sqrt[20]{x+2}$

Problem 3. (1.5 points each) Simplify the following.

(a) $\sqrt{25x^2}$

(b) $\sqrt[4]{81x^{12}x^0y^8}$