ACMAT100 Spring 2025
Professor Manguba-Glover
Sections 7.1-7.2 Classwork (CW 10) Name: _____

Complete as many of the following problems as you can. You do not have to go in order. You can use a calculator to check your work but not to solve the problems.

If **your entire table** finishes early, you may leave early.

(1) Evaluate each expression, or indicate that the root is not a real number.

(a) $\sqrt{25} - \sqrt{4}$
(b) $\sqrt{(-6)^2}$
(c) $\sqrt{-25}$
(d) $8^{1/3}$
(e) $16^{-5/2}$
(f) $125^{2/3}$

(2) Simplify each expression

(a) $\dfrac{\sqrt{3x^3}}{\sqrt{48x}}$

(b) $(7x^{1/3})(2x^{1/5})$

(c) $(y^{1/3})^6$

(d) $\dfrac{(2x^{1/4})^5}{x^{3/8}}$

(e) $\dfrac{\sqrt[5]{64x^6}}{\sqrt[5]{2x}}$

Key:

(1) (a) 3 (b) 6 (c) Not a real number (d) 2 (e) $\frac{1}{1024}$ (f) 25

(2) (a) $\frac{x}{4}$ (b) $14x^{8/15}$ (c) y^2 (d) $32x^{7/8}$ (e) $2x$