ACMAT100 Spring 2025
Professor Manguba-Glover
Sections 1.3-1.4 (CW 1) Name: _____

Complete as many of the following problems as you can. You do not have to go in order. If **your entire table** finishes early, you may leave early.

Note: This classwork is optional

(1) Evaluate the following absolute values:

(a) $|29-9|$
(b) $|4-7|$
(c) $4-|15-12|$
(d) $-|-7+4|+3$

(2) Perform the following operations

(a) $-\frac{1}{3}\cdot\frac{-9}{5}$
(b) $\frac{1}{5}\cdot\frac{5}{3}\cdot\frac{7}{2}$
(c) $\frac{-7}{24}\div\frac{3}{12}$
(d) $\frac{2}{5}-\frac{1}{2}+\frac{1}{3}$

(3) Evaluate each expression.

(a) $\sqrt{25}-\sqrt{4}$
(b) $\sqrt{25-16}$
(c) $\sqrt{(-6)^2}$
(d) $\sqrt{\frac{100}{64}}$

(4) Use the order of operations to simplify each expression:

(a) $4^2+(8-2)^2-4$
(b) $2\cdot 3^2-(12-14)$
(c) $\left(\frac{1}{3}+\frac{2}{5}\right)\div\frac{3}{2}$
(d) $5-\left(1+\frac{1}{2}\right)+(3-4)-\left(7-\frac{1}{2}\right)$

(5) Evaluate the given algebraic expression using the given x value:

(a) x^2+2x; $x=2$
(b) $7+8(x-3)^2$; $x=7$

(6) Evaluate the given algebraic expression using the given values of x and y:

(a) $x^2-3(x-y)$; $x=8$ and $y=2$
(b) $\frac{2x+3y}{x+1}$; $x=-2$ and $y=4$

(7) Evaluate the algebraic expression for $x=2$ and $y=-5$

(a) $|x+y|$
(b) $|x-y|$
(c) $|x|-|y|$
(d) $\frac{|x|}{x}+\frac{|y|}{y}$