

MICHEAL BEAR, WRITING ACTIVITY I, 9/3/25

**Problem 1** (Arithmetic). *Simplify*

$$n = (1 + 1)^{1-1} \times (10)^{1+1} + (1 - 1)^{1+1} \times (10)^{1 \times 1}$$

and then evaluate  $(-1)^n$

*Solution.*

$$n = (1 + 1)^0 \cdot (10)^2 + (0)^2 \cdot (10)^1$$

$$n = 1 \cdot 100 + 0 \cdot 10$$

$$n = 100$$

$$(-1)^n = (-1)^{100} = -1$$

**Problem 2** (Algebra and Geometry). *Find a point on the line  $y = x$  in the Cartesian plane that is distance 5 from the point (2,1) and whose x-coordinate is Positive.*

*Solution.*

$$a^2 + b^2 = c^2$$

$$c^2 = 25$$

$$a = b$$

$$(5 - 2)^2 + (5 - 1)^2 = 25$$

the point with the distance of from (2,1) 5 is (5,5)

**Problem 3** (Optional). *Share any thoughts or questions You'd like about the readings:*

*Solution.*