

Each WA is worth 10 points total. Work right on these pages. You can work together, with a tutor, or with me, but NEVER copy. This WA is for a grade, so dishonesty or cutting corners may earn a 0 for all involved.

1. (a) *[2 pts]* Find the 2114th term of the sequence below. Show clear, organized work, and clearly indicate your final answer.

2, 0, 6, 5, 1, 3, 2, 0, 6, 5, 1, 3, 2, 0, 6, 5, 1, 3, 2, 0, 6, 5, ...

- (b) *[1 pt]* Your work above involved at least one instance of multiplication or division. Meaningfully tell WHY you multiplied or divided the numbers you did. (In other words, what did multiplication or division help you find out?)

Caution: Answers like “ $10 \div 5$ helped me find out 10 divided by 5” are NOT meaningful because they’re just saying how we read that symbol out loud. That’s not an explanation of WHY you divided those numbers in the first place.)

2. [2 pts] Find the 625th term of the sequence below. Show clear, organized work, and clearly indicate your final answer. (No explanation required this time, but you might want to practice anyway.)

83, 74, 65, 56, ...

3. [1.5 pts - 0.5 each] Place parentheses, if needed, to make each statement true. If none are needed, just write "CORRECT AS IS."

(a) $4 + 3 \cdot 2 + 1 = 15$

(b) $6 + 3 + 9 \div 3 = 10$

(c) $7 + 3 \cdot 2^2 - 3 = 16$

4. [2 pts] Find the value of the expression below, showing the steps in the Order of Operations one at a time. Do NOT skip steps.

$$\frac{18 + 6}{3} + 0.5 \cdot 4^2 - 15 \div 5 \cdot 3$$

5. [1.5 pts - 0.5 each] Give the FULL name of the property that has been used in each example.

(a) $(6 + 3) + 5 \cdot 4 = (6 + 3) + 4 \cdot 5$

(b) $0 \cdot (6 + 3) + 5 = 0 \cdot 6 + 0 \cdot 3 + 5$

(c) $6 \cdot (3 \cdot 5) + 0 = (6 \cdot 3) \cdot 5 + 0$