

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

1. [2 pts] Find the 5028th term of $t, 3, t, 9, n, 7, 9, 2, t, 3, t, 9, n, 7, 9, 2, t, 3, t, 9, n, 7, 9, 2, \dots$. Show clear work, and briefly EXPLAIN (2 sentences or so) your mathematical process in a way that tells **someone not in our class** WHY you did it/WHAT your results represent in context.

2. [2 pts] Find the 730th term of $60, 51, 42, 33, \dots$. Show clear work, with correct equal sign use, but you need not explain.

3. [0.5 pts] Identify one part (your answer can look like “#1(a)”) on this WA where I give you a complete number sentence and another where I give an algebraic expression, telling which is which.

4. [1 pt] Complete the number sentence below so that it demonstrates the Zero Property of Multiplication

$$5(4 + 3) + (2 + 1) + 0 = \underline{\hspace{10cm}}$$

5. [1.5 pts - 0.5 each] Tell whether the work shows correct or incorrect use of the = sign in each part below. If incorrect, fix the work to be correct.

- (a) In a problem-solving problem on an exam, I have to compute three products and then add them: 10 times 24, 100 times 2, and 2 times 3.

$$10 \times 24 + 100 \times 2 + 2 \times 3 = 240 + 200 = 440 + 6 = 446$$

- (b) In a “distant term” problem, I have to multiply 18 and 63 and then add that to 10.

$$18 \times 63 = 1134 + 10 = 1144$$

- (c) I’m working a problem where I need to subtract 16 from 2391, then divide by 25 and add 1.

$$(2391 - 16) \div 25 + 1 = 96$$

6. [1.5 pts - 0.5 each] Give the full name of the property demonstrated in each part below.

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

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

(c) $(6 + 3) \cdot 1 + 5 = (6 + 3) + 5$

7. [1.5 pts] Simplify completely, showing clear steps.

$$3(4a - 7) - 8(2t - 1) - (6a + t) + 5$$