ANSWER SHEET

Student .......................................................... Date ..........................................

Period ............

Your answers to Part I should be recorded on this answer sheet.

Part I

Answer all questions in this part.

1 ........ 6 ........
2 ........ 7 ........
3....... 8 ........
4....... 9 ........
5....... 10 ........

Your answers for Part II should be written in the test booklet.

The declaration below should be signed when you have completed the examination.

Academic honesty and integrity are basic to an effective learning community. All students are expected to be honest and display a high standard of integrity in the preparation and presentation of work in all classes. I understand the importance of academic integrity at Westlake High School, and I vow to be honest and honorable in all of my dealings with fellow students, faculty, and staff. I understand that each time I sign my name to a school document, I am reaffirming this pledge. [Adapted from Westlake High School Honor Code]

________________________________________________________________________________

Signature
Part I
On the separate answer document, please print the capital letter that best completes each statement or answers each question. (2 points each, no partial credit)

1. Write $4x^3 - 6x + 2x^5 + 3$ in standard form.
   
   A $3 - 6x + 4x^3 + 2x^5$  
   B $4x^3 + 3 + 2x^5 - 6x$  
   C $2x^5 + 4x^3 - 6x + 3$  
   D $-6x + 4x^3 + 3 + 2x^5$

2. Simplify. $3a(a^2 - 3a + 4) - 4(3a^3 - 2a^2)$
   
   F $-12a^3 + 11a^2 - 9a + 12$  
   G $-15a^3 - 17a^2 + 12a$  
   H $-9a^3 - a^2 + 12a$  
   J $-3a^3 + 5a^2 + 4a$

3. Find the difference. $(x^3 - x + 1) - (3x - 1)$
   
   A $3x^3 - x$  
   B $x^3 - 4x$  
   C $x^3 - 4x + 2$  
   D $x^3 + 2x + 2$

4. Find the product. $(2x + 11)(3x - 7)$
   
   F $6x^2 + 19x^2 - 77$  
   G $5x^2 - 47x + 4$  
   H $5x^2 + 47x - 4$  
   J $6x^2 - 19x + 77$

5. Find the product. $(3x + 2)(4x^2 - 2x - 7)$
   
   F $12x^3 + 2x^2 - 25x - 14$  
   G $7x^3 + 9x^2 - 25x - 14$  
   H $12x^3 + 14x^2 + 25x + 14$  
   J $7x^3 + 7x^2 - 4x - 5$
6. Find the product of the binomials. (2x – 5)(2x + 5)

A 4x  
B 4x^2 – 25  
C 4x^2 – 20x – 25  
D 4x^2 + 25

7. Find the product. (2a – 3b)^2

A 4a^2 – 9ab^2  
B 2a^2 – 6ab + 3b^2  
C 4a^2 – 6ab – 9b^2  
D 4a^2 – 12ab + 9b^2

8. Simplify. 3(a^2 – 3a + 4) – 4(3a^3 – 2a^2)

F –12a^3 + 11a^2 – 9a + 12  
G –15a^3 – 17a^2 + 12a  
H –9a^3 – a^2 + 12a  
J –3a^3 + 5a^2 + 4a

9. Which of the following expressions is equivalent to 6k\left(\frac{1}{2}k + 1\right) 8\left(\frac{1}{4}k + 2\right)?

A 3k^2 + 4k  16  
B 3k^2  k  16  
C 11k  16  
D 3k^2 + 8k  16

10. Find the product. (4a^2 + b)^2

F 16a^4 + b^2  
G 16a^4 + 8a^2b + b^2  
H 8a^4 + b^2  
J 4a^4 + 8a^2b + b^2
Part II: Open Response

Each question is worth the indicated number of points. Please show the required work to receive full credit for problems worth multiple points. For all questions in Part II, a correct numerical answer with no work shown will receive 1 point.

11. Express the sum in standard form. (1 point)
   
   \[(4y^2 + 3y - 7) + (4y^2 - 7y - 2)\]

12. Find the difference. (1 point)
   
   \[(5n^2 - 2ny + 3y^2) - (9n^2 - 8ny - 10y^2)\]

13. Simplify. (2 points, work and final expression in standard form)
   
   \[-3n^2(n - 4) - 6n(-2n^2 - n + 6) + 8(n^2 - 1) + 1\]

14. Express the area of the figure in terms of \(x\). (2 points, work and final expression in standard form)

   Area: ________________________
15. The lengths of the sides of a square are each represented by $4n - 3$. Express the area of the square in terms of $n$. Represent the simplified expression in standard form. (2 points, work and final expression in standard form)

Area: ________________________

16. Find the area of the shaded region in terms of $x$. (2 points, work and final expression in standard form)

Area: ________________________

17. The measures of two sides of a triangle are given. If the perimeter of the triangle is $6y^2 + 7y + 40$, find the measure of the third side. (2 points, work and solution)

Measure of third side: ________________________
18. Find the product. (1 point)

\((-4n + 3)^2\)

19. Find the product. (1 point)

\(5hk^2(2h^2k - hk^3 + 4h^2k^2)\)

20. Express the difference in standard form. (1 point)

\((-9y^2 - 9y - 9) - (6y^2 - 6y + 6)\)