

Class Name : \*MT\* Math 095 MW Fall 18 - Math 095  
MW Fall18 B02

Instructor Name : Bottom

Student Name : \_\_\_\_\_

Instructor Note : \_\_\_\_\_

1. Evaluate.

$$(-3)^3 = \boxed{\phantom{00}}$$

$$(-6)^2 = \boxed{\phantom{00}}$$

2. Evaluate.

$$-8^2 = \boxed{\phantom{00}}$$

$$-(-3)^3 = \boxed{\phantom{00}}$$

3. Multiply.

$$-5v^4 \cdot 3v^2$$

Simplify your answer as much as possible.

4. Simplify.

$$\frac{18bcd}{48cd}$$

5. Simplify.

$$\frac{vw^6u^4}{v^3w^5}$$

6. Simplify.

$$\frac{a^5 b^3}{a b^4}$$

7. Simplify.

$$(-2x^4 y^3)^5$$

Write your answer without parentheses.

8. Simplify.

$$(-2y^2 z)^3 (2x^2 y^3 z^3)$$

9. Evaluate the expressions.

$$(-4)^0 =$$

$$3\left(-\frac{8}{9}\right)^0 =$$

10. Rewrite the following without an exponent.

$$2^{-4}$$

11. Rewrite the expression without using a negative exponent.

$$-6z^{-2}$$

Simplify your answer as much as possible.

12. Simplify.

$$\frac{x^{-5}}{x^{-7}}$$

Write your answer with a positive exponent only.

13. Simplify.

$$(3a^3b^{-2})^{-2}$$

Write your answer using only positive exponents.

14. Rewrite

$$\frac{1}{10,000,000}$$

as a power of 10.

15. Write 0.0000461 in scientific notation.

16. Calculate.

$$(7 \times 10^5)(8.2 \times 10^6)$$

Write your answer in scientific notation.

17. Calculate.

$$\frac{6 \times 10^9}{2 \times 10^4}$$

Write your answer in scientific notation.

**18.** What are the leading coefficient and degree of the polynomial?

$$4 - 8x^9 - 20x$$

Leading coefficient:

Degree:

**19.** Multiply.

$$3w \cdot 4x^4 \cdot 4w^2 x^7$$

Simplify your answer as much as possible.

**20.** Rewrite without parentheses.

$$7xy^2(9x^4 + 5x^3y^6 - 6y^6)$$

Simplify your answer as much as possible.

**21.** Multiply.

$$(5x + w)(7x + w)$$

Simplify your answer.

**22.** Rewrite without parentheses and simplify.

$$(6 + y)^2$$

**23.** Multiply.

$$(y - 4)(3y^2 - 7y - 2)$$

Simplify your answer.

**24.** Divide.

$$\frac{7v^6 + 6v^4 + 9v^2}{-v^2}$$

Simplify your answer as much as possible.

**25.** Divide.

$$(10x^2 + 42x + 41) \div (2x + 6)$$

Your answer should give the quotient and the remainder.

Quotient:

Remainder: