

FALL 2016 MATH0409 REVIEW EXAM 3

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

What is the meaning of the expression?

1) 2^6

A) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2$

B) 26

C) 5

D) $6 \cdot 2$

1) _____

Evaluate.

2) 6.61^1

A) 1

B) 0

C) 6.61

D) 43.69

2) _____

3) m^6 when $m = 3$

A) 18

B) 5

C) 729

D) 36

3) _____

Express using positive exponents. Then simplify.

4) x^{-7}

A) x^7

B) $\frac{1}{x^{-7}}$

C) $7x$

D) $\frac{1}{x^7}$

4) _____

Multiply and simplify.

5) $3^{-6} \cdot 3^9$

A) 3^9

B) 3^{12}

C) 3^3

D) 1

5) _____

Divide and simplify.

6) $\frac{t^5}{t}$

A) $\frac{1}{t^4}$

B) t^5

C) t^4

D) t

6) _____

Perform the indicated operation. Write the answer in scientific notation.

7) $(5.03 \times 10^5)(7.73 \times 10^{-2})$

A) 3.9×10^4

B) 3.9×10^{-10}

C) 3.89×10^4

D) 3.89×10^{-10}

7) _____

Evaluate the polynomial.

8) $8x^2 + 2x - 8$ for $x = 2$

A) 18

B) 24

C) 28

D) 12

8) _____

Identify the terms in the polynomial.

9) $5x^4 - 5x^2 - 4x - 2$

A) $5x^4, 5x^2, 4x, 2$

B) $5, x^4, -5, x^2, -4, x, -2$

C) $5, x^4, 5, x^2, 4, x, 2$

D) $5x^4, -5x^2, -4x, -2$

9) _____

Collect like terms.

10) $3x^4 + 4x^2 + 8x^4$

A) $11x^4 + 4x^2$

C) Can't be simplified

B) $15x^{10}$

D) $15x^2$

10) _____

Identify the polynomial as a monomial, binomial, trinomial, or none of these. Give its degree.

11) $9s^6 + 7s - 4$

A) Trinomial, degree 7

C) Trinomial, degree 8

B) Binomial, degree 7

D) Trinomial, degree 6

11) _____

Subtract.

12) $(9x^5 + 20x^4 + 5) - (4x^4 + 6x^5 - 10)$

A) $3x^5 + 26x^4 - 5$

B) $3x^5 + 16x^4 - 5$

C) $34x^9$

D) $3x^5 + 16x^4 + 15$

12) _____

Multiply.

13) $\left(\frac{1}{6}x^6\right)\left(\frac{1}{5}x^7\right)$

A) $\frac{1}{30}x^{13}$

B) $\frac{1}{30}x^{42}$

C) $\frac{1}{11}x^{42}$

D) $-\frac{1}{30}x^{13}$

13) _____

14) $(8x^2)(-8x^4)(7x^6)$

A) $448x^{12}$

B) $-448x^{48}$

C) $448x^{48}$

D) $-448x^{12}$

14) _____

15) $-8x^4(-11x^7 - 9x^6)$

A) $88x^{11} + 72x^{10}$

B) $88x^2 + 72x$

C) $88x^{11} - 72x^{10}$

D) $88x^{11} - 9x^6$

15) _____

16) $(9m + 10)^2$

A) $81m^2 + 100$

C) $9m^2 + 180m + 100$

B) $81m^2 + 180m + 100$

D) $9m^2 + 100$

16) _____

17) $(4y + x)(4y - x)$

A) $16y^2 - 8xy - x^2$

C) $16y^2 + 8xy - x^2$

B) $16y^2 - x^2$

D) $8y^2 - x^2$

17) _____

18) $(w - z)(w^2 + z^2 + 3wz)$

A) $w^3 + 3wz^2 - 3w^2z - z^3$

C) $w^3 + 2wz^2 - 2w^2z - z^3$

B) $w^3 - 3wz^2 + 3w^2z - z^3$

D) $w^3 - 2wz^2 + 2w^2z - z^3$

18) _____

Divide.

19) $\frac{16x^5 - 10x^2 - 8x}{2x}$

A) $8x^5 - 5x^2 - 4x$

B) $8x^4 - 5x - 4$

C) $16x^4 - 10x - 8$

D) $8x^5 - 10x^2 - 8x$

19) _____

$$20) \frac{30x^8 - 10x}{10}$$

A) $3x^8 - 10x$

B) $3x^8 - 1x$

C) $3x^7 - 1$

D) $30x^8 - 1x$

20) _____