

LeMoyne-Owen College
Division of Natural and Mathematical Sciences

MATH011
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Exam 3

Name: _____

Show Your Work. Do not use calculators, cell phones, or computers.

Perform each of the operations indicated: (5% each)

1. $(5x^2 - 6x + 2) - (3x^2 - 4x + 9)$

2. $(2x - 3)(x + 5)$

3. $(x - 3)^2$

4. $4xy(3x + y^2)$

Simplify the following expressions: (5% each)

5. $x^2 \cdot x^3$

6. $\frac{x^6}{x^3}$

7. $(x^5)^3$

8. $x^2 + x^2$

9. $5x + x$

Solve the following equations. (5% each)

10. $x + 8 = 6$

11. $3x = 12$

12. $\frac{x}{4} = 8$

13. $2x - 3 + 5x = 8 - 6x + 2$

14. $2(4x + 3) = 2 - 4(x - 4)$

Completely Factor the expressions: (5% each)

15. $x^2 + 5x + 4$

16. $2x^2 + x - 3$

17. $x^2 + 4x - 5$

18. $x^2 - 9$

19. $8x^2 - 2x$

20. $2xy + 4x - 7y - 14$