

Suffolk County Community College
Michael J. Grant Campus
Department of Mathematics

Fall 2021

MAT 007
Algebra I

Final Exam

Instructor:

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Please print the requested information in the spaces provided:

Student:

Name:

Student Id:

Email:

include to receive the final grade via email ONLY if you are not getting email updates

- *Notes and books are permitted on this exam.*
- *Graphing calculators, computers, cell phones and any communication-capable devices are prohibited. Their mere presence in the open (even without use) is a sufficient reason for an immediate dismissal from this exam with a failing grade.*
- *You will not receive full credit if there is no work shown, even if you have the right answer. Please don't attach additional pieces of paper: if you run out of space, please ask for another blank final.*

Problem 1. Solve the system of linear equations:

$$\begin{cases} 2x + y = 5 \\ x + y = 2 \end{cases} .$$

Space for your solution:

Problem 2. Simplify the fraction:

$$\frac{\sqrt[3]{24 x^2 y^5}}{3\sqrt[3]{x y}} .$$

Space for your solution:

Problem 3. Consider two points $(-1, 5)$ and $(1, 1)$ on the (x, y) -plane.

(1). Find the slope of the line that joins these two points.

Space for your solution:

(2). Find the slope-intercept equation of the line that joins these two points.

Space for your solution:

(3). Find the y -intercept of the line that joins these two points.

Space for your solution:

Problem 4. Solve the equation:

$$\frac{2}{x-3} + \frac{4}{x+3} = \frac{4x}{x^2-9}.$$

Space for your solution: