

MTH 111, Exam #2, Part 2, Fall 2020 Name _____

Instructions: For this portion of the exam, you may use a metric/English conversion chart, and a scientific calculator to find the solutions to the questions. You will then post the answers to those questions in Canvas under Exam #2 Part 2. You may not use other people or notes to complete the exam.

Academic Integrity Statement

I affirm that, I, _____ (student name), do attest that I alone am completing the problems on this test without receiving unauthorized assistance. I understand that violations of academic integrity may result in sanctions, up to and including expulsion from the college.

_____ (Student Signature)

_____ (Student ID number)

Attach a copy of your photo ID to the online submission (there is a question drop box for it). The ID must be a photo ID. A Driver's license, School ID (NOVA or otherwise), or a work ID are acceptable as long as it contains your full name and photo.

Every answer is worth 3 points. The work shown is worth 5 points.

1. Simplify $\frac{3a^2b+4a^2b^2-6ab^2}{2ab^2}$

2. Combine like terms.

$$2x^3 + 4x^2y - 4y^3 - x^2y + y - y^3$$

3. Translate the following statements into algebraic expressions or equations.

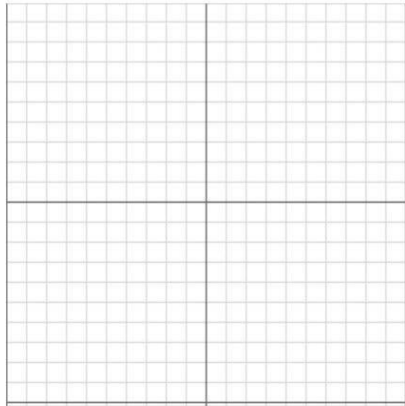
a. The difference between twice a number and thirty is fifty.

b. The product of a number and six decreased by seventeen is seven.

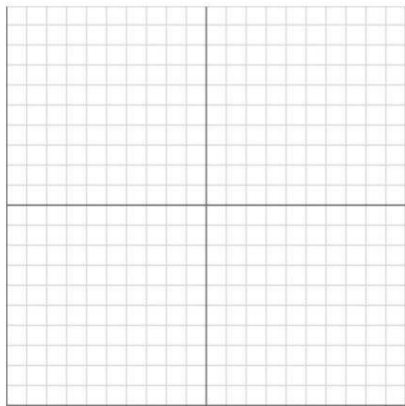
4. One side of a rectangular yard is bounded by the side of a house. The other three sides are to be fenced with 345 ft of fencing. The length of fence opposite the house is 15 ft less than either of the other two sides. Find the length and width of the yard.

5. Solve the formula $A = ab + \frac{d}{2}(a + c)$ for d .

6. Draw the graph of the line with $m = \frac{3}{2}$, $b = 4$ on the graph below. Label the intercepts.



7. Draw the graph of the line $3x + 2y = 12$ on the graph below. Label the intercepts.



8. Find the equation of the line through the point $(-3, -3)$ and with a slope of $\frac{1}{2}$.

9. Find the equation of the line passing through the points $(3,3)$ and $(1,5)$.