

May 2023

Integrated Math III Honors Summer assignments using Precalculus by Michael Sullivan

Below are the required expectations for the summer homework which should be done in a lined composition book—you will need two of these, one for notes and one for homework. Clearly **PRINT** your name on the cover with permanent marker. Place the homework composition book in my mailbox by **3 pm Monday, August 7th**. Anything turned in after this day is **LATE** and will receive **HALF** credit ☹️

RECOMMENDED—(not required) For each day, read the material in the appendix of your text **and** take notes for any areas you struggle with—in a **separate** NOTES composition book-- **before** attempting the written work on delta math.

There are also examples and videos built into delta as well that you can use to take notes in the areas where you are struggling—but not required, just **HIGHLY** recommended. You will be allowed to use a composition book of **notes** on your quizzes. **ONLY turn in the Homework composition book**. The Notes Composition Book will be collected when you take a CHAPTER TEST. You will have several small quizzes that first couple of weeks of school. **DO NOT** put extra credit in the composition book, put the extra credit papers in a 3-pronged folder with each assignment clearly labeled; **HOWEVER**, it is also **due when the HW is due**.

Grade any missed problems with a **RED** pen, as you complete it. Delta Math will walk you through the correct process for each problem that you miss. **Be sure to label EACH assignment with ALL information at the TOP of each page**. On delta math, each section is separated, so number each problem as you work through a section. Leave **MISSED** questions as part of your work as well.

You need to create a **DELTA MATH** account for this class **and** join the summer Google classroom not **ONLY** for correspondence but there are **SEVERAL** folders that have **LOTS** of amazing information that will help you be more successful in an honors math class. The **Google class code for SUMMER is w5hzawl**. The delta math teacher code is 643436—be sure to enroll into the **2023-2024 Honors Math 3 Summer Group class**.

You can also click on the link within the summer google classroom 😊

Go to DeltaMath.com,

click on the "for students" then register—use your school google account to login
type in my teacher code: 643436.

make a username (use your school gmail account) and password (use your student ID),
type your first and last name

select your period—which for now is the summer one—from a dropdown menu.

- ❖ ANY PROBLEMS THAT SAY GRAPH, **MUST BE DONE ON GRAPH PAPER**; HOWEVER, MAKE SURE THAT YOU CUT THE GRAPH PAPER INTO SMALLER PIECES AND THEN TAPE EACH SMALL GRAPH NEXT TO EACH PROBLEM—I **DO NOT** WANT A PAGE OF GRAPHS.

*****Throughout the year, for each section of the text, I will **ALWAYS** expect you to pre-read the chapter and "take notes" on your own before class. I will always go over the examples and explain what things mean; however, I need you to be familiar with the material. Part of your grade will be just simply pre-reading and taking those notes.*****

EXTRA CREDIT OPPORTUNITY

There are currently eight assignments (more may be added). Be sure to follow the guidelines on how to title your papers and how I expect your work to be shown going **DOWN** the page—see next page 😊 You **MUST** copy the problem and show all work 😊 If it is a graphing problem, you **MUST** use graph paper. These assignments need to be completed on separate pieces papers. Staple **each individual** assignment together. There are extra credit test points as well as homework points. Take advantage of this now. I **DO NOT** offer extra credit during the year. I **NOT** accept late extra credit work. Finally, get started early. These assignments cannot be completed in one day 😊

EXPLORE the class website. **Read and take notes on Section 1.1 from the textbook—or from my google folder—before the first day of class.**

Examples of what I expect from you—**non adherence will result in NOT receiving credit** for assignments.

Correct method for showing work: Work down the page—NOT across, one step per line. If you use a formula, write it down.

At the top of each assignment should be **ASSIGNMENT # AND Title of the Section**

Make sure that you are **copying all questions** and showing all **work going DOWN** the page.

Simplify so that all exponents are positive.

$$64) \frac{4x^{-2}(yz)^{-1}}{(-5)^2 x^4 y^2 z^{-2}} = \frac{4x^{-2}y^{-1}z^{-1}}{25x^4 y^2 z^{-2}}$$

$$= \frac{4z^2 z^{-1}}{25x^4 x^2 y^2 y^1}$$

$$= \frac{4z^{2-1}}{25x^{4+2} y^{2+1}}$$

$$= \frac{4z}{25x^6 y^3}$$

a and b are the lengths of the legs of a right triangle and c is the length of the hypotenuse. Find the missing length.

$$78) a = 10, c = 13 \quad a^2 + b^2 = c^2$$

$$b = \sqrt{c^2 - a^2}$$

$$= \sqrt{13^2 - 10^2}$$

$$= \sqrt{169 - 100}$$

$$= \sqrt{69}$$

$$12) 3(2 - x) = 2x - 1$$

$$3(2) - 3x = 2x - 1$$

$$6 - 3x = 2x - 1$$

$$6 = 2x + 3x - 1$$

$$6 = 5x - 1$$

$$6 + 1 = 5x$$

$$7 = 5x$$

$$x = \frac{7}{5}$$

$$38) \frac{-2}{x+4} = \frac{-3}{x+1} \quad \text{Domain: } \{x \mid x \neq -4 \text{ and } x \neq -1\}$$

$$-2(x+1) = -3(x+4)$$

$$-2x + -2(1) = -3x + -3(4)$$

$$-2x + -2 = -3x + -12$$

$$-2 = -3x + 2x + -12$$

$$-2 = -1x + -12$$

$$-2 + 12 = -x$$

$$10 = -x$$

Again, make sure that you are working **DOWN** not across the page.

$$70) |2u + 5| \leq 7$$

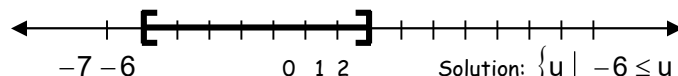
$$-7 \leq 2u + 5 \leq 7 \quad \text{OR} \quad 2u + 5 \leq 7 \text{ and } 2u + 5 \geq -7$$

$$-7 - 5 \leq 2u + 5 - 5 \leq 7 - 5$$

$$-12 \leq 2u \leq 2$$

$$\frac{-12}{2} \leq \frac{2u}{2} \leq \frac{2}{2}$$

$$-6 \leq u \leq 1$$



$$\text{Solution: } \{u \mid -6 \leq u \leq 1\} \text{ OR } [-6, 1]$$

AGAIN, Make sure that you are copying all questions and showing all **work going DOWN** the page

Find the distance $d(P_1, P_2)$ between the points P_1 and P_2 . Also find the midpoint of the line segment joining the points.

$$14) P_1 = (-4, -3); P_2 = (2, 2)$$

$$d(P_1, P_2) = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$= \sqrt{(2 - (-4))^2 + (2 - (-3))^2}$$

$$= \sqrt{(6)^2 + (5)^2} = \sqrt{36 + 25} = \sqrt{61}$$

$$\text{Midpoint } M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

$$= \left(\frac{-4 + 2}{2}, \frac{-3 + 2}{2} \right)$$

$$= \left(\frac{-2}{2}, \frac{-1}{2} \right) = \left(-1, \frac{-1}{2} \right)$$