

Test 2: 20 points
Time 60 Minutes

Make sure to explain and show your work. No use of digital devices or calculators. If you need to use the restroom, do it before the test begins. You may not leave the classroom during the test. No other paper or note is allowed, do all your work on the test papers. Return all papers.

1. Find the result of the following statement in base 4 (5 points)

$$270_8 (10110101_2) + 7a4_{16} (159_{10})$$

2. An EXCEL sheet contains 100 rows of 4 columns of data. Each data represents a product that a grocery store chain carries in its 100 stores. Grocery store owners wants to eliminate the products from the stores that are not selling enough. They have collected the data for the last 12 months of sales and placed it in columns A-D (store name, product 1, product 2, and product 3). Explain how to do the operation requested. (3 points)

Write an IF statement in column E that checks how the store in column A has performed in the past year. If it has sold above average of sales of all stores for that product keep that product, otherwise eliminate it from that store. The outcome of the column E should be statements like this, “Keep Product 1 Eliminate Product 2 Keep Product 3” and so on.

3. You have access to a digital camera that can take pictures but not video. You have a microphone and a PC to record your voice. Your PC has Movie Maker and you are great in making (put the name of a dish that you can make). You plan to make a video and let the rest of the world know how to make that dish. What steps do you take? Explain in detail. Do not use general sentences, be specific as how each step is. (3 points)

4. Explain how you can make the following design in Tinkercad. (4 points)



5. List 5 keys to success in this class. (1 points)

6. Explain 3 examples of plagiarism according to MSU catalog (2 points)

7. Explain 3 uses of 3-D printing in manufacturing. (2 points)