

These questions are due by the end of the week. 10/10 points towards your assessment grade if you get them all right and have the math work on paper to back up your work.

You will receive zero points and fail the assignment if you are asked for your work on paper and can not produce that effort. Missing some part of the assignment will cause a loss of that percent of the overall assignment.

These weekly problems cannot be attempted a second time and the work must be turned in on time, not later in the day, not during remediation, and not the next day.

You should work on these problems throughout the week and use down time in class to work with your teams on the solution to these problems.

1.

Standard A1.1.1.1.1

Which of the following inequalities is true for **all** real values of x ?

A. $x^3 \geq x^2$

B. $3x^2 \geq 2x^3$

C. $(2x)^2 \geq 3x^2$

D. $3(x - 2)^2 \geq 3x^2 - 2$

2.

B. Hector also kept track of the remaining gasoline. The equation shown below can be used to find the gallons of gasoline remaining (g) after driving a distance of d miles.

$$g = 16 - \frac{1}{20}d$$

Use the equation to find the missing values for gallons of gasoline remaining.

Gasoline Remaining by Mile

Distance in Miles (d)	Gallons of Gasoline Remaining (g)
100	
200	
300	

3. REWRITE the following real numbers from least to greatest.

$$\left(\frac{1}{5}\right)^2 \quad \sqrt{5} \quad \frac{3}{8} \quad \frac{4}{7} \quad 0.003$$

4. Evaluate the value of this expression.

Show your WORK (NO CALCULATOR) for credit.

$$\frac{1}{6}(\sqrt{36} \div \frac{1}{9}) + 4^3 \div |-8|$$