

Quiz # 5 Sections 3.4, 3.5, 3.6, 3.7

Class: Precalculus

Semester: Fall 2020

Name:

Grade:

Directions: Answer each of the five content questions below to the best of your ability, showing work as possible. In addition, below each question, you will be asked to rate your confidence in your answer (choose 1 for "low", 2 for "medium", and 3 for "high"). This quiz is designed to be a "gut check" and assess confidence in material learned. Do not stress over this - you can do it!

Gift of Grace: If you are not satisfied with your grade after the quiz is handed back, you can come visit with me during office hours to discuss your quiz and talk through some of the questions. If you exercise this option, I will add 5 points (out of 15 possible) to your quiz grade. See Scoring at the right to see how this may impact your grade.

Scoring: Your answer will be marked "right" (completely 100% correct) or "wrong", but feedback will be given based on work shown. Your score is based on the confidence level chosen for each question. (If you do not check a confidence level, it will be assumed to be 1.)

Each question awards points as follows:

	C1	C2	C3
Right	1	2	3
Wrong	0	-2	-6

Your grade on this quiz will be based on how many points you accumulate:

Did Not Do	Grade: 0
3 points or less	Grade: 50
At least 4 points	Grade: 70
At least 8 points	Grade: 90
At least 12 points	Grade: 100

1. True/False: If $f(2) = 4$ and $f(3) = -6$, if $f(x)$ is a polynomial, there is guaranteed to be a zero between $x = 4$ and $x = -6$.

Confidence: 1 2 3

2. Consider the function $f(x) = 5(x - 3)^3(x + 2)^2(x - 7)$. Where, if anywhere, will the graph of $f(x)$ touch, but not cross, the x-axis?

Confidence: 1 2 3

3. Divide $\frac{4x^3 - x^2 + 2x - 6}{x - 4}$. Express the division in $q(x) + \frac{r(x)}{d(x)}$ form, where $q(x)$ is the quotient, $r(x)$ is the remainder and $d(x)$ is the divisor.

Confidence: 1 2 3

4. Find all zeroes of $f(x) = x^3 - 7x^2 + 15x - 9$. All zeroes are integers.

Confidence: 1 2 3

5. True/False: The graph of $f(x) = \frac{3x^2-11}{x-6}$ has a vertical asymptote at $x = 6$.

Confidence: 1 2 3