

Name: \_\_\_\_\_  
Precalculus Summer Work



2024-2025

# Rising 12th Grade Summer Math Packet

Hi rising Seniors! Hope you are having a great summer so far! I put together just a few review questions for you before we jump into Precalculus! All of this content is a review from things you have learned in your high school years and they are skills that will help us in Precalculus this year!

## Directions:

- Complete all pages of the attached packet.
- Show **all** of your work. Try to work without a calculator.
- You can get help from friends, family, or other sources, but do **not** use ChatGPT or PhotoMath. It's important that **you** understand the work because **you** need to understand this math for 12th grade.

Name: \_\_\_\_\_

Precalculus Summer Work

1. Round 4.857626 to the nearest thousandth (three decimal places)

2. Round 0.646399 to the nearest thousandth (three decimal places)

3. Factor  $6x-18$

4. Solve for x:  $25x - 17 = 33$

5. For this question I give you an example and you should fill in the one below it!

<b><u>EXAMPLE</u></b> <b><u>Expression:</u></b>	$- 4x^2 - 2x + 7$		
<b><u>Terms</u></b>	$- 4x^2$	$- 2x$	$7$
<b><u>Coefficients</u></b>	$- 4$	$- 2$	
<b><u>Constants</u></b>			$7$

Name: \_\_\_\_\_

Precalculus Summer Work

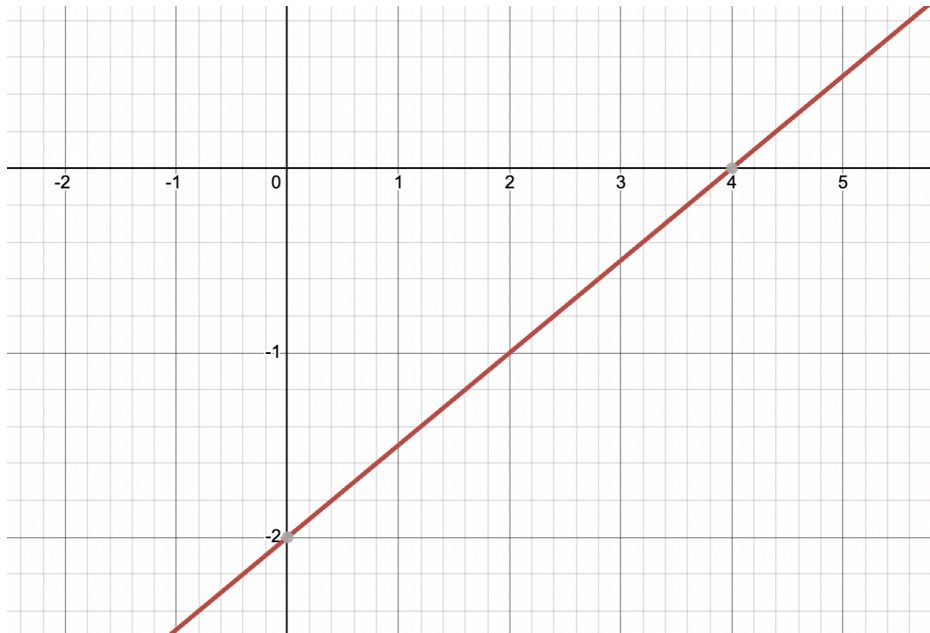
<b>Expression:</b>	$7x^3 - 2x^2 + 9x - 15$			
<b>Terms</b>				
<b>Coefficients</b>				
<b>Constants</b>				

6. Find the slope (also called rate of change) from this table, remember slope (rate of

change) is found by:  $\frac{y_2 - y_1}{x_2 - x_1}$ . This is just the change in y divided by the change in x!

x	y
1	-7
2	-4
3	-1
4	2

7. Find the slope and the y-intercept (where the line crosses the y-axis) of this line



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Precalculus Summer Work

8. Factor this Polynomial:  $x^2 - 5x + 6$  If you need help watch this [video](#)

9. Factor this polynomial:  $x^2 + 7x + 10$

10. Given the function  $f(x) = 5x^2 - 2x + 1$

a. Solve for  $f(5)$  Hint: Plug in 3 wherever you see an x and Simplify!

b. Solve for  $f(-2)$  Hint: Plug in 3 wherever you see an x and Simplify!