

Summer Review Packet for students entering Geometry

There are 4 due dates for the summer work. The assignments must be completed neatly, on a separate sheet of paper. All work must be shown. Calculators are permitted. It is NOT recommended to complete this packet immediately following school dismissal in June nor the night before the packet is due. Student learning is most effective if packet is completed during the months of July and August. The grade for the assignment will be inputted as a quiz grade.

Recommended Schedule:

<u>Assignment</u>	<u>Recommended Completion Date</u>
Week 1	July 8
Week 2	July 15
Week 3	July 22
Week 4	July 29

Final Due Date: August 28, 2017

Week 1

Summer Assignment

Simplify each expression.

1. $5 + 3(2)$

2. $\left(\frac{16}{2}\right) - 4(5)$

3. $4^4(5) + 3(11)$

4. $17(2) - 4^2$

5. $\left(\frac{20}{5}\right)^3 - 10(3)^2$

6. $\left(\frac{27-12}{8-3}\right)^3$

7. $(4(5))^3$

8. $2^5 - 4^2 \div 2^2$

9. $\left(\frac{3(6)}{17-5}\right)^4$

Evaluate each expression for $s = 2$ and $t = 5$

16. $s + 6$

17. $5 - t$

18. $11.5 + s^2$

19. $\frac{s^4}{4} - 17$

20. $3(t)^3 + 10$

21. $s^3 + t^2$

22. $-4(s)^2 + t^3 \div 5$

23. $\left(\frac{s+2}{5t^2}\right)^2$

24. $\left(\frac{3s(3)}{11-5(t)}\right)^2$

Week 2

Summer Assignment

Solve each equation.

1. $8p - 3 = 13$

2. $8j - 5 + j = 67$

3. $-n + 8.5 = 14.2$

4. $6(t + 5) = -36$

5. $m - 9 = 11$

6. $\frac{1}{2}(s + 5) = 7.5$

7. $7h + 2h - 3 = 15$

8. $\frac{7}{12}x = \frac{3}{14}$

9. $3r - 8 = -32$

10. $8g - 10g = 4$

11. $-3(5 - t) = 18$

12. $3(c - 4) = -9$

Solve each equation. If the equation is an identity, write *identity*. If it has no solution, write *no solution*.

15. $4h + 5 = 9h$

16. $2(3x - 6) = 3(2x - 4)$

17. $7t = 80 + 9t$

18. $m + 3m = 4$

19. $-b + 4b = 8b - b$

20. $6p + 1 = 3(2p + 1)$

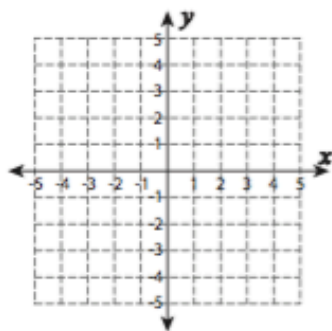
Week 3

Summer Assignment

Graph each function rule by finding the outputs that correspond to the inputs.

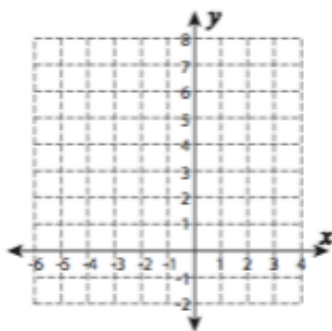
1) $f(x) = 2x + 1$

x	-3	-2	0	1	2
$f(x)$					



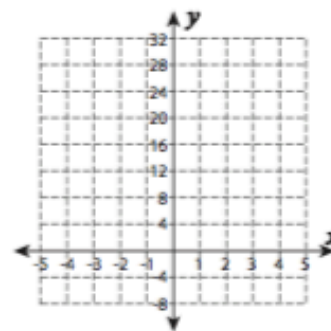
2) $f(x) = x + 5$

x	-6	-5	-3	1	3
$f(x)$					



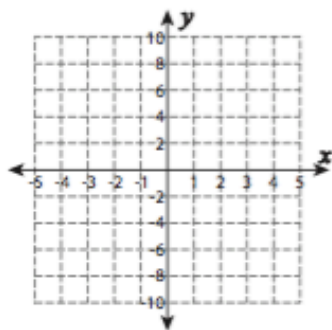
3) $f(x) = 4 - 8x$

x	-3	-2	-1	0	1
$f(x)$					



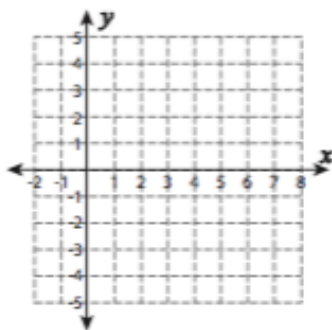
4) $f(x) = 2x$

x	-3	-2	-1	0	2
$f(x)$					



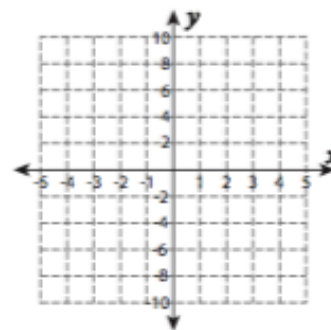
5) $f(x) = x - 9$

x	4	5	6	7	8
$f(x)$					



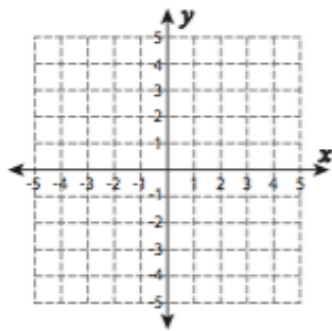
6) $f(x) = 2x + 4$

x	-4	-2	-1	2	3
$f(x)$					



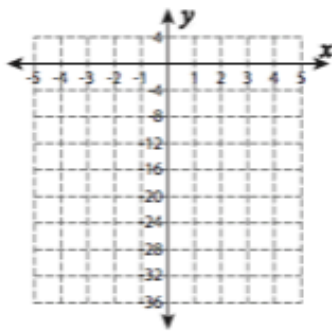
7) $f(x) = -4 - x$

x	-3	-2	-1	0	1
$f(x)$					



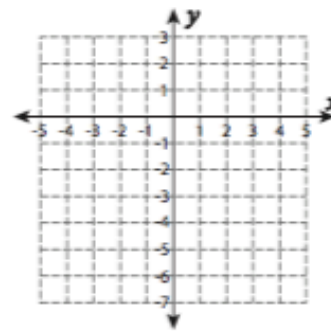
8) $f(x) = 4x - 12$

x	-5	-3	0	1	2
$f(x)$					



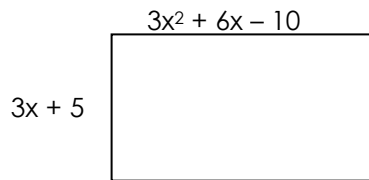
9) $f(x) = -x - 2$

x	-3	-1	1	3	5
$f(x)$					

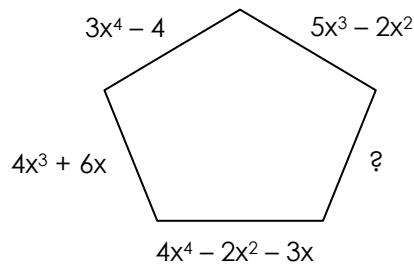


Week 4
Summer Assignment

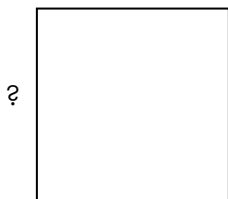
1. What is the distance around the rectangle if the length is $3x^2 + 6x - 10$ and the width is $3x + 5$?



2. If the perimeter of the pentagon below is $7x^4 + 9x^3 - 6x^2 + 10$, what is the length of the missing side?

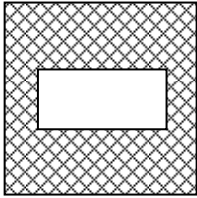


3. If the perimeter of the **square** below is $12x^5 - 8x^2 + 20x - 4$, what is the length of one side?

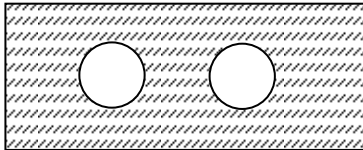


4. Ana knows that the perimeter of her backyard is $(6x^2 + 14x)$ feet. If the length of her backyard is $(2x^2 + 3x - 7)$ feet, what is the width of her backyard?

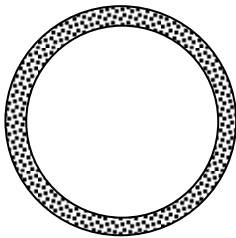
5. The area of the square below is represented by the expression $4x^2 + 4x + 1$. The area of the rectangle is represented by the expression $x^2 - 5x + 6$. Using the diagram below, find the area of the shaded region.



6. A rectangular piece of wood has an area of $5x^4 + 3x^2 - 6x + 8$. If two identical circles are cut out of the wood and the area of EACH circle is $x^2 - 2$, find the area of the remaining piece of wood. (Hint: Use the picture below.)



7. A circular plot of land has an area of $7x^5 - x^3 + 4x^2 + 9$. If the walkway around this piece of land has an area of $x^4 - 4x^3 + 2x$, what is the area of the land and walkway combined?



8. The width of Adrian's bedroom is $(x - 5)$ feet. He knows that the length is four times the width. Find the perimeter of Adrian's bedroom.