Geometry 2018
Summer Packet

*This review packet is worth extra credit if completed and handed in at the beginning of your first class of Geometry.

*You will be quizzed on the topics contained within this review packet in your Geometry class.

Name:___________________________
Date:____________________________
Period:__________________________
Summer Review Packet

Why?

1) Because all students can improve their math skills

2) Because math is the gateway to opportunities after high school

- The vocabulary and exercises in this review packet are designed to help you review topics from previous mathematics courses that are important to your success in this course.
- To receive credit, you must show all your work for each exercise.
- Someone may assist you, if needed, but you need to write out all solutions and attempt to understand or remember the process and the vocabulary. A peer study group might be helpful too.
- Assessments in September will further check your understanding of the topics contained in this review packet.
- If you need assistance, all of these topics can be researched on-line or at your local library; In addition
  - Attend Math Help Hours at Enfield High School – These dates and times are the following:
    June 27th 10 AM – 11:30 AM and August 22nd 10 AM – 11:30 AM.
Calculators in Math Class

Used wisely, calculators can be a powerful instructional tool. Students are expected to bring an appropriate calculator to class on a daily basis. Please note that cell phone calculator applications cannot be used on any test or quiz.

To meet Common Core Expectations, a Graphing Calculator is recommended for all math classes. Students will need to become comfortable and knowledgeable with graphing calculator technology and features in preparation for the new state test which will be administered to all students in Grade 11. A suitable Graphing Calculator can be purchased for approximately $100.00. One example of an appropriate graphing calculator would be the TI-83 Plus. A slightly more expensive graphing calculator would be the TI-84 Plus. In preparation for the new school year, graphing calculators are usually on sale during the month of August.

For some applications, a Scientific Calculator may also be used in class. A suitable Scientific Calculator can be purchased for less than $20.00. An example of an appropriate calculator would be the Texas Instruments TI-30XIIS Scientific Calculator.

<table>
<thead>
<tr>
<th>Course</th>
<th>Calculator Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra 1</td>
<td>Graphing Calculator preferred</td>
</tr>
<tr>
<td>Geometry</td>
<td>Graphing Calculator preferred</td>
</tr>
<tr>
<td>Algebra 2</td>
<td>Graphing Calculator</td>
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<tr>
<td>Precalculus</td>
<td>Graphing Calculator</td>
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<tr>
<td>Calculus</td>
<td>Graphing Calculator</td>
</tr>
<tr>
<td>Statistics &amp; Probability</td>
<td>Graphing Calculator</td>
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</tbody>
</table>

If a student cannot afford the purchase of a graphing calculator, the school has a limited supply that can be loaned to students for the school year. To borrow a calculator for the school year, a loan form must be signed by the parent or guardian indicating that the student will replace the calculator with an equivalent one in an unopened package if the calculator is damaged or lost.
Topic #1 Solving Equations

Show all work.

1. \(9a + 5 = 3a - 1\)
2. \(6(x - 9) = 4(x - 5)\)

3. \(2(x - 4) + 8 = 3x - 8\)
4. \(3x - 3 = -3x - 3\)

5. \(-10x + 6 = -7x - 9\)
6. \(5 + 3x = 7(x + 3)\)

7. \(\frac{5}{2}x + 3 = \frac{1}{2}x + 15\)
8. \(2x + 6 = 5x - 9\)

9. \(4e - 19 = -3(e + 4)\)
10. \(-7x + 3(4x - 17) = 9\)

11. \(-3(2x - 11) + 3x = 63\)
12. \(34 = -4x + 5(2x - 4)\)
Topic #2 Graphing Equations

Identify each slope and y-intercept and then graph the line.

13. \( y = \frac{1}{2}x + 3 \)
   
slope: _______
   
y-intercept: _______

14. \( y = -2x + 4 \)
   
slope: _______
   
y-intercept: _______

15. \( y = \frac{2}{3}x - 5 \)
   
slope: _______
   
y-intercept: _______

16. \( y = -\frac{1}{4}x + 3 \)
   
slope: _______
   
y-intercept: _______
17. $y = -4x - 1$

slope:_______

y-intercept:________

18. $y = 5x - 3$

slope:_______

y-intercept:________

19. $y = x + 4$

slope:_______

y-intercept:________

20. $y = -x + 3$

slope:_______

y-intercept:________
Topic #3 Converting from Standard Form to Slope Intercept Form
Solve each problem for \( y \) (aka. get the equation into \( y = mx + b \) form). Show all work.

23. \( 3x + 4y = 8 \) 
24. \( 15x + 8y = 56 \)

25. \( 10x + 3y = 2 \) 
26. \( 11x + y = -5 \)
27. $16x + 9y = 40$

28. $3x + 5y = 15$

29. $-2x + 7y = 14$

30. $4y = -24$

31. $x - y = 11$

32. $13x + 5y = -40$

33. $3x - y = 3$

34. $x - 6y = -12$