Welcome to Norwalk High School!

You are about to embark on the next journey in your educational career. We are looking forward to a year-long adventure with you in your Geometry course.

This packet contains topics that you are expected to know prior to entering your Geometry course. This packet should be completed independently. You are to complete this assignment in pencil and show all work.

If you are struggling with any of this material, you are encouraged to check out helpful videos online. Scan the QR code using your phone to access a site containing helpful videos specific to this packet.

**There will be an assessment on this material during your first class.**

For the upcoming school year, you will be required to bring the following supplies to class every day:

1. TI-84 Plus or TI-84 CE graphing calculator
2. 1½ inch 3-ring binder (dividers optional)
3. Pencil (#2 or mechanical)
4. Loose leaf paper

Enjoy the rest of summer and see you soon!

Please have your parent/guardian read and sign this form as well. The signatures below will indicate to your teacher that you have read and understand our expectations of you upon entering this class.

Student Name (Print): ____________________________ Student Signature: _____________________________

Parent/Guardian Signature __________________________________________

Date: ___________________________
Order of Operations: **NO CALCULATOR**

1) \(3(2 + 4) - 2(7 - 1)\)  
2) \(26 - (17 - 8 \div 2)\)  
3) \(12 - 4 \cdot 2 + (-3)^2\)

4) \(7^2 - 6(9 - 4) \div 3\)  
5) \(14 + (13 - 6)^2 - 4 \times 6\)  
6) \(\frac{7(9 - 3)^3}{12}\)

7) \(\frac{4}{9} + \frac{1}{9}\)  
8) \(\frac{2}{3} + \frac{5}{4}\)  
9) \(2 \left(\frac{1}{3}\right) - \left(\frac{3}{4}\right)\)  
10) \(\frac{3}{5} \div \frac{6}{7}\)

Simplifying Expressions – **NO CALCULATOR**

1) \(3x + 5x - 4\)  
2) \(7x \cdot 9x\)  
3) \(4(5x^2 - 2x + 3)\)

4) \(-3x(4 - 3x)\)  
5) \(9 - 4(3x - 1)\)  
6) \(4y(2 - y) + 3y^2\)

7) \((7x^2 + x - 3) - (2x - 3)\)
Solving Equations – NO CALCULATOR

1) \(-2x = -4x + 24\)  
2) \(7x - 40 = -3x\)  
3) \(8x - 9 = 8x\)

4) \(2(2x - 3) = 4x - 6\)  
5) \(\frac{1}{4}(4 - x) = 10 + 2x\)  
6) \(\frac{2}{3}(3x + 18) = 5x - 9\)

7) \(\frac{2}{3} = \frac{x+7}{3x}\)  
8) \(\frac{x-2}{x+3} = \frac{4}{5}\)  
9) \(2(x + 2) = -3(x - 8)\)

Linear Functions: NO CALCULATOR

Part 1: Find the slope between the two points.

1) \((-5, 5)\) and \((-7, 1)\)  
2) \((12, -7)\) and \((-2, 0)\)  
3) \((5, 2)\) and \((7, 2)\)  
4) \((-3, 7)\) and \((-3, 10)\)

Part 2: Graph the lines on coordinate plane.

1) \(y = 2x - 3\)  
2) \(y = -\frac{2}{3}x + 6\)  
3) \(x - 4y = -8\)
Part 3: Write the equation of the line given the following criteria:

1) passing through the points \((2, -4)\) and \((4, -5)\)  
2) parallel to \(y = 2x - 1\) and passing through \((8, -10)\)  
3) perpendicular to \(y = \frac{2}{3}x - 5\) passing through \((6, -3)\)

Geometry: Recall what you have already learned about these basic geometric concepts.


1) Draw the following:
   a) Acute Angle  
   b) Obtuse Angle  
   c) Right Angle  
   d) Straight Angle  
   e) Right Triangle

2) Classify the following angles as acute, obtuse, right, or straight.
   a) \(75^\circ\)  
   b) \(137^\circ\)  
   c) \(180^\circ\)  
   d) \(90^\circ\)

Part 2: Finding missing measures.

1) \(\angle KLB = 26^\circ\) and \(\angle BLM = 60^\circ\)  
   \[\text{Find } \angle KLM.\]

2) \(\angle FGH = 159^\circ\) \(\angle FGB = 105^\circ\)  
   \[\text{Find } \angle HGB.\]

3) \(\angle BJK = 146 + 2x\) \(\angle IJB = 2x + 26^\circ\) \(\angle IJK = 172^\circ\)  
   \[\text{Find } x.\]
4) Find $TU$.  

![Diagram of points T, U, V and line segments](image)

5) Find $HI$.  

![Diagram of points H, I, J and line segments](image)

6) Find $x$.  

![Diagram of points M, L, K and line segments](image)

**Part 3:** Pythagorean Theorem – find the missing side in the right triangles.

1) 

![Right triangle with sides 8 and 10](image)

2) 

![Right triangle with sides 4 and 8](image)

3) $a = 5 \quad b = 12 \quad c = ?$

**Part 4:** Area and Perimeter.

1) 

![Rectangle with dimensions 9cm x 3cm](image)

Perimeter = 

Area = 

2) 

![Square with side length 14 and dimensions 11 and 8](image)

Perimeter = 

Area = 

3) 

![Circle with radius 12 inches](image)

Circumference = 

Area = 

4) 

![Shape with dimensions 6m, 8m, and 10m](image)

Perimeter = 

Area =

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Estimate the following (without using a calculator).

Example: $\sqrt{34} \approx 5.8$

1) $\sqrt{78}$

2) $\sqrt{83}$

3) $\sqrt{18}$

4) $\sqrt{10}$