The following skills are recommended, self-guided, SUMMER WORK resources for all students scheduled to take **Geometry**. Please plan to spend some quality time this summer practicing these skills. We recommend you pace yourself and do not leave it all until the last week.

Below is the list of recommended Khan Academy tutorials, the second page are the skills students should be proficient in by the first day of school. There will be an assessment of this material the first week of school.

https://www.khanacademy.org; click **COURSES** (upper left); click **MATH;** scroll down, click, and complete each of the following:

Student should complete the following categories/skills from **7th Grade** math:

1. Expressions, equations, and inequalities (all skills)

Once your student has completed these, return to the **MATH** menu, scroll down, click **8th Grade,** and student should complete the following:

1. Solving Equations with One Unknown (all skills)
2. Linear Functions & Equations
    a. Graphing Proportional Relationships
    b. Solutions to Linear Equations
    c. Intercepts
    d. Slope
    e. Intro to Slope-intercept form
    f. Graphing Slope-intercept form
    g. Writing slope-intercept equations

Once your student has completed these, return to the **MATH** menu, scroll down, click **Algebra I,** and student should complete the following:

1. Forms of Linear Equations (all skills)
2. Functions – evaluating functions, inputs & outputs of a function, and functions & equations.
3. Exponents and Radicals (all skills)
4. Quadratics: Multiplying and Factoring – intro to factoring and factoring quadratics intro
5. Quadratic Functions and Equations – solving quadratics by factoring.

**Student SUPPLIES NEEDED FOR GEOMETRY 2024-25**:

**Text**: Glencoe Mathematics: Geometry, ISBN: 0-07-865106-9, a TI-30 XIIS Scientific Calculator (please only get this calculator, it is used for Geometry & Algebra II, it costs about $12 at all the big box stores), Graph Paper (if desired), Loose-leaf paper, pencils, 1-2" Binder.

**Teacher Wish List**: loose-leaf paper, black dry erase markers, and Lysol spray and/or wipes.

*"An investment in knowledge always pays the best interest." - Benjamin Franklin*

Geometry – Summer Work Assignment

Name: _____

Date: _____

Solve each of the following equations or inequalities, leave answers in simplest form.

1 $\frac{3}{4}x+16=2-\frac{1}{8}x$ x = _____

2 6 (x + 2 ) – 4 = - 10 x = _____

3 $6(x-5)=18-2x$ x = _____

4 3(2x + 25) – 2(x-1) = 78 x = _____

5 2(2x+3) – 3(4x-5)=22 x = _____

6 5( 2x – 6 ) – 7(x + 7) > 4x _____

Solve each of the following for slope-intercept form: y = mx + b

7 $2(x+y+1)=4y$ _____

8 $5x-3y+2=14-4x$ _____

Write an equation in slope-intercept form for each of the following:

9 **( - 3, - 1 ), m =** $-\frac{2}{3}$ _____

10 **( - 5, 1 ), m =** $-\frac{3}{2}$ _____

11 **( 2, - 2 ) and ( 3, 2 )** _____

12 x-int = - 3, y-int = 4 _____

13 contains (4,6) parallel to 3y – 2x = 15 _____

14 contains ( 2, - 5) perpendicular to **y = ¼ x + 7** _____

Factor or solve each of the following completely.

15 $x^2-5x-6$ _____

16 $x^2-18+7x$ _____

17 $3x^2+18x-21$ _____

18 $8x^2-6x-9$ _____

19 $4x^2-20x=0$ _____

20 $x^2-6x+9=16$ _____

Simplify each radical expression completely.

21 $\sqrt{196}$ _____

22 $\sqrt[3]{64}$ _____

23 $\sqrt{\frac{8}{5}}$ _____

24 $\sqrt{80}$ _____

25 $\sqrt{72}$ _____