The following skills are recommended, self-guided, SUMMER WORK resources for all students scheduled to take **Algebra I 8 or 9**. 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. Knowing your multiplication facts prior to Algebra I would be STRONGLY encouraged and EXTRA practice with fractions can't hurt either!

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 corner); click **MATH;** scroll down & complete the tutorials listed below:

For Math 7th Grade, the student should complete the following categories/skills:

1. Negative Numbers: addition and subtraction (all skills)
2. Negative Numbers: multiplication and division (all skills) - KNOW YOUR MULTIPLICATION FACTS!
3. Fractions, decimals, and percentages – only complete the skill Adding and Subtracting Rational Numbers
4. Expressions, equations, and inequalities (all skills)

Once your student has completed 7th Grade, return to the **MATH** menu, scroll down, click **8th Grade, and** complete the following:

1. Numbers and Operations
   a. square roots & cube roots
   b. irrational numbers
   c. exponents with negative bases
   d. exponent properties intro
   e. negative exponents
   f. exponent properties
2. Solving Equations with One Unknown (all skills)
3. Linear Equations and Functions
   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
   h. Functions
   i. Recognizing functions

Student SUPPLIES NEEDED FOR Algebra I 2024-25:

Text: McDougal Littell Algebra I, ISBN: 0-395-93776-0, Graph Paper, Loose-leaf paper, pencils, 1-2'' Binder.

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

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

Algebra I – Summer Work Assignment

Name: _____

Date: _____

Evaluate each expression.

1. $\frac{38-12}{2\cdot 13}$ _____

2. $\frac{2\cdot 8^2 - 2^2 \cdot 8}{2 \cdot 8}$ _____

3. ¾ (8) + ½ (12) _____

4. $[8\bullet 2-(3+9)]+[8-2\bullet 3]$ _____

5. $10+16\div 4+8$ _____

6. - 4 + 13 + (-6) _____

7. 15 + (-12) + (-4) _____

8. $-11-(-6)-7$ _____

9. $16\div(-\frac{4}{5})$ _____

10. $\frac{3}{2}+\frac{1}{3}-\frac{3}{4}$ _____

11. $\frac{-12(2+(-3))}{-4+1}$ _____

Simplify each expression.

12. $4(a-6)$ _____

13. 6 - 4t - 4 _____

14. $2x(7-x)+3x^2$ _____

15. $6(x+3)-2(4-x)$ _____

16. $\frac{-24x}{-\frac{2}{3}}$ _____

17. $4\bullet 3a+2(a+6b)$ _____

Solve each equation.

18. x – 55 = - 17   x = _____

19. x – (- 65) = 15   x = _____
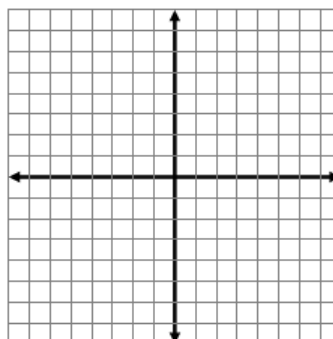
20. 7 + 3x = - 11   x = _____

21. 3x – 5 = 7x – 21   x = _____

22. 2 (x-3)+5 = 3(x-1)   x = _____

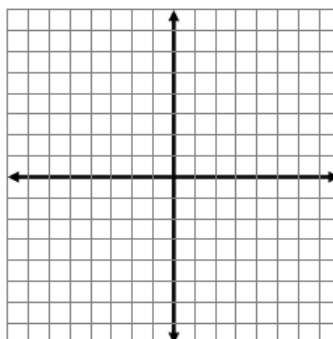23.   Graph the line and find its slope: (-1, 3) & (2, -6)   m = _____

Graph using a T-chart with 3 ordered pairs.

24.   y = 2x - 2

x	y

25. $-3y = -6 + 9x$

x	y