The following skills are recommended, self-guided, SUMMER WORK resources for all students scheduled to take **Bridges**. 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 corner); click **MATH;** scroll down, click, and complete skills on the following:

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

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. Systems of Equations – all skills except word problems
3. Inequalities (systems and graphs) – checking solutions of two-variable inequalities and graphing two-variable inequalities.
4. Functions – evaluating functions, inputs & outputs of a function, functions & equations, and recognizing functions.
5. Exponents and Radicals (all skills)
6. Quadratics: Multiplying and Factoring (all skills)
7. Quadratic Functions and Equations – solving by taking the square root and solving quadratics by factoring.

Student SUPPLIES NEEDED FOR Bridges 2024-25:   Text: NONE, a TI-30 XIIS Scientific Calculator (students should already have from Geometry), Graph Paper (if desired), 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

Bridges – Review Assignment

Name: _____

Date: _____

Evaluate each expression.

1. $\frac{38-12}{2\cdot13}$ _____

2. $\frac{2\cdot8^2-2^2\cdot8}{2\cdot8}$ _____

3. ¾ (8) + ½ (12) _____

4. $[8\bullet2-(3+9)]+[8-2\bullet3]$ _____

5. $10+16\div4+8$ _____

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. $4\bullet3a+2(a+6b)$ _____

Solve each equation.

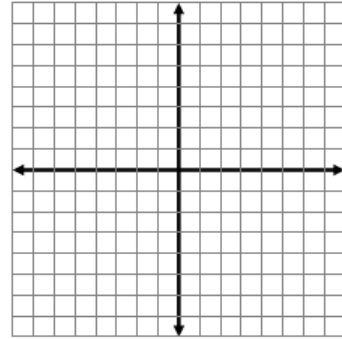18. x – 55 = - 17 x = _____

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 = _____

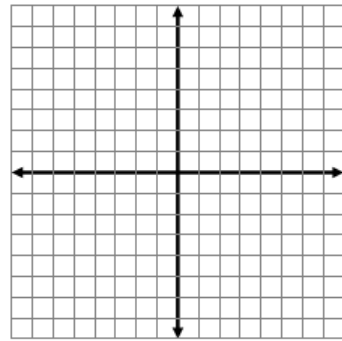23.   Graph the line and find its slope: (-1, 3) & (2, -6)   m = _____
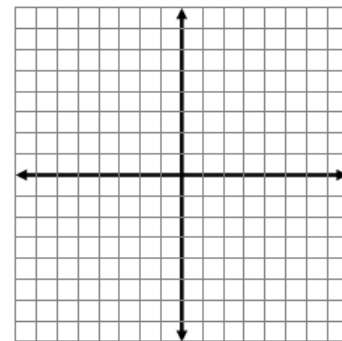
Graph using a T-chart with 3 ordered pairs.

24.   y = 2x - 2

x	y

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

x	y

26.   Simplify: $2(-2x)^3$ _____   27.   Simplify: $\dfrac{-y^5 z^7}{y^8 z^5}$ _____

28.   Simplify: $\dfrac{-12m^4 n^8 (m^3 n^2)}{36 m^5 n^{12}}$ _____

29.   What is the slope of the line parallel to 2x – 3y = 15?   29.   _____

30.   What is the slope of the line perpendicular to the line above?   30.   _____