Herricks Middle School
Summer Review Assignment to prepare for Grade 8 Math Courses (Algebra/Pre-Algebra)
June 2020

Dear Parent/Student,
The math department suggests that you take time during your summer break to complete the Summer review packet. This packet reviews some important topics from your Grade 7 course that will help you prepare for your Grade 8 Algebra/Pre-Algebra course.

It is strongly recommended that each student creates a Khan Academy account using his/her Herricks Google login to review and strengthen both Grade 7 and Grade 8 math. For students starting Algebra in Grade 8, this will give them a head start. Each math topic within the Khan Academy course is covered through video tutorials, interactive practice, assessment, and skill summaries all with instant feedback to help students track their progress toward mastery. Please see the links below to assist you with Khan Academy. It is also recommended that students spend approximately 30 minutes per week on IXL to continue strengthening their math skills.

Have a healthy and safe summer break!

https://www.khanacademy.org/
Help Creating an Account using Google
Information about Khan Academy Course Mastery
How to Add/Change Courses

Name Herricks Incoming 8th grade Summer Assignment

1. $\frac{1}{18}+\frac{5}{6}$

2. $\frac{7}{15}-\frac{1}{5}$

3. $\frac{9}{16}-\frac{5}{12}$

4. $\frac{5}{14}-\frac{2}{21}$

5. $\frac{7}{8}-\frac{1}{6}$

6. $-\frac{7}{10}-\frac{4}{15}$

7. $\frac{5}{6}-\left(-\frac{3}{4}\right)$

8. $-\frac{2}{3}-\left(-\frac{1}{2}\right)$

9. $3\frac{1}{2}+2\frac{5}{8}-4\frac{1}{4}$

10. $1-\frac{3}{4}$

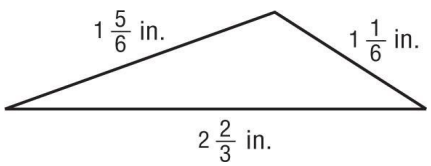
11. $4\div-\frac{8}{9}$

12. $5-\frac{1}{4}$

13. $\frac{3}{7}\cdot\left(\frac{4}{15}-\frac{1}{5}\right)$

14. $\left(\frac{3}{4}+\frac{1}{2}\right)\div\frac{11}{12}$

15. Find the perimeter of the triangle.



16. Nastia knitted two scarves for her dolls. One was $8\frac{3}{4}$ inches long. The other was $1\frac{1}{2}$ inches shorter than the first. How long was the second scarf?

17. What is $7+y(3+y)^2$ when evaluated for $y=-5$?

18. Evaluate $-10z+2y\div z$ for z =-2 and y =6.

19. Find $-3(x-2)\div y^2$ evaluated for $x=4$ and $y=\frac{1}{2}$.

20. Kurt works at a cafe and earns $16 per hour. On Wednesday, he worked t hours, and his neighbor paid him $5 per hour to babysit for b hours. Which expression best represents the amount Kurt earned?

A $16t+5$ C $16t+5b$

B $16t-5b$ D $16b+5t$

21. Which of the following is equivalent to $6(2y-4)+p$?

A $p+12y-24$ C $p-6(2y-4)$

B $6y+p-24$ D $24+12y+p$

22. The expression $7z-9p+9z-z$ is equivalent to which of the following?

A $-2z+8p$ C $15z+9p$

B $8z$ D $-9p+15z$

23. What is $3(2x+7y)-6x$ equivalent to after being simplified?

24. Les bought 6 pairs of shorts for *s* dollars each and 2 pairs of pants that cost *p* dollars each. He also bought a blazer that cost three times as much as a pair of shorts. Write an expression that represents the total amount Les spent.

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25. Evaluate $x \div 4 + 3y^2$ for $x = 8$ and $y = 3$.

26. Evaluate the algebraic expression $-6r + 3s + \frac{1}{2}$ for $r = \frac{1}{4}$ and $s = 1$.

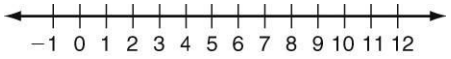
27. Selena's family took a road trip. The first day, they traveled 462 miles in 7 hours. They continued at the same rate on the second day and traveled for 4 hours. How far did they travel in all?

28. What is $\frac{7(5+2x)}{y^2}$ evaluated for $x = -\frac{1}{2}$ and $y = 2$?

29. Solve $7 + \frac{x}{4} = 5$ for *x*.

30. What is the solution for the equation $0.7m - 3.2 = 2.5 + 1.2m$?

31. Graph the solutions of $\frac{x}{4}+6\frac{1}{4}>7\frac{1}{2}$.



32. What are the solutions of $7(4-y)\le 9y+20$?

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33. Simplify $12x-3(2x+y)-5y$.

34. Solve $2.5=\frac{x}{6}$.

35. Solve $5z-12z-10=18+7z$.

36. Solve the equation $21p-4=\frac{12p+7}{2}$.

37. Solve $5x+2(3x-7)=-20+11x+6$.

38. A cell phone company charges \$45 per month for unlimited calls and \$0.25 per text message. Another cell phone company charges \$0.15 per text message and \$70 per month for unlimited calls.
    a. Write an equation to represent when the cost from both companies will be the same.

b. Solve the equation and interpret the solution.

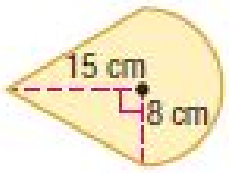
39. Find the percent of decrease from 20 to 17. (round to the nearest tenth if necessary)

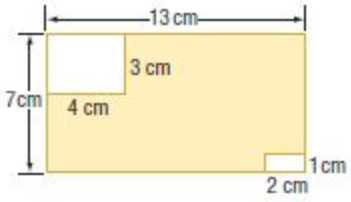
40. Find the percent of increase from 4 to 7. (round to the nearest tenth if necessary)

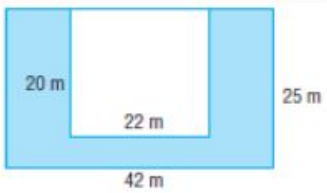
41. Factor the following expressions below:

12x-32	15x+25	18y-27x

42. Find the areas of the figures below:







43. What is an equation of a linear function with a slope of -5 and *y*-intercept of 7?

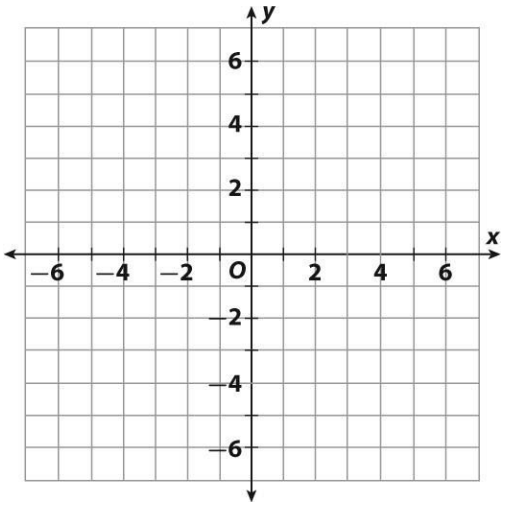
44. What is the slope of the line below?

line that passes through the points (1,5) & (-2, -7)?

ow in slope-intercept form.

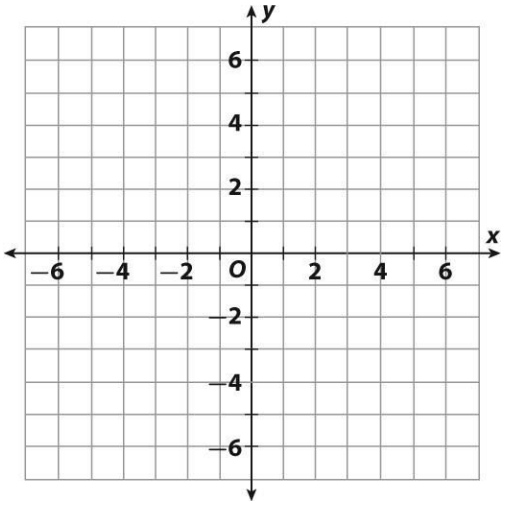
47. Graph the line, y = -2x+3 using slope-intercept form
Slope (m) = _____

y-intercept (b) = _____



48. a. Graph the functions y = -x + 2 and y = x - 8.

b. At what point do the two lines intersect (meet)?



Having Trouble? Check out the links below to help you with the problems in this assignment!

Finding Slope given a graph: http://tinyurl.com/Slopegivenagraph Slope given two points: http://tinyurl.com/z9xlt4z Graphing Slope intercept from: http://tinyurl.com/kglwp9j Fractions: http://tinyurl.com/otdyjwf	Percent of Change: http://tinyurl.com/jantu2z Solving Inequalities: http://tinyurl.com/pszgjvx Solving Equations: http://tinyurl.com/pszgjvx Factoring: http://tinyurl.com/hx9xxw9 Expressions: http://tinyurl.com/kcq3xxh