Summer Assignment for Students Going Into
7th Grade Pre-Algebra

Directions:

- ❏ Set up Khan Academy to be able to access helpful videos for your summer homework.
    - ❏ Go to khanacademy.org and log in using your JBHA email (if you don't yet have one, use your personal email address).
    - ❏ Go to "Teachers" and enter the code CGNCFK5Z to add "PreAlgebra - 7th Grade - Summer 2021" to your courses.
    - ❏ You will be added to the course shortly. Once you have been added to the course by your teacher, then you should see a list of recommended videos that match the topics in this packet.
        - ❏ These videos are **not** required. They are optional to provide additional support.
- ❏ Complete this packet one topic at a time following the directions below:
    - ❏ Complete all problems in the section, showing all of your work. If there is no work to show, write a sentence or two explaining your answer. <mark>You may not use a calculator on this assignment. Only questions with work and/or explanations will be counted as complete.</mark>
    - ❏ Write your final answer/solution on the chart on the next page.
    - ❏ Check your answers using the answer key on the last page of this packet.
        - ❏ If a question is wrong, that's okay! Check your work for any mistakes and try again :).
        - ❏ If multiple questions are wrong or you don't understand how to arrive at the correct answer, it's probably time to get extra help (see below).
- ❏ If you need extra help you should:
    - ❏ Follow the directions on the chart to the corresponding video on Khan Academy. All of the videos in the chart are "assigned" to you in your Khan Academy class. No googling required :)
        - ❏ Please make sure to use the link on your Khan Academy class so we have a record of which topics may need to be reviewed upon returning to school in September.
- ❏ Bring this packet with you on the first day of school.
    - ❏ While we will be looking at the chart to see trends across the class, your grade will be based on **completion** not correct answers.
    - ❏ Please draw a ☆ next to any topic you would like your teacher to review with you or the whole class.

Name: _____

Solution/Reflection Chart

Topic	Question	My Answer	Correct?	Khan Academy Video(s)
Simplifying Expressions	1			**Combining Like Terms (4 Videos)**
	2			
Writing Expressions	3			**Writing Expressions (3 Videos)**
	4			
	5			
	6			
Fraction Arithmetic	7			**Adding and Subtracting Fractions (12 Videos)** **Multiplying and Dividing Fractions (15 Videos)**
	8			
	9			
	10			
	11			
	12			
	13			
	14			
	15			
Decimal Arithmetic	16			**Adding andSubtracting Decimals (11 Videos)** **Multiplying and Dividing Decimals (12 Videos)**
	17			
	18			
	19			
	20			
	21			
Converting Between Fractions, Decimals, & Percents	22			**Converting Between Fractions, Decimals and Percents (5 Videos)**
	23			
	24			

Converting Between Fractions, Decimals, & Percents	25			**Converting Between Fractions, Decimals and Percents (5 Videos)**
	26			
	27			
	28			
	29			
	30			
	31			
	32			
	33			
Ratios & Percents	34			**Ratio/Percent Problems (5 Videos)**
	35			
	36			
	37			
Solving One-Step Equations	38			**One-Step Equations (10 Videos)**
	39			
	40			
	41			
	42			
	43			
Positive & Negative Numbers	44			**+/- Numbers (12 Videos)**
	45	**Graph**		
Coordinate Plane	46	**Graph**		**Coordinate Plane/Ordered Pairs (10 Videos)**

REMINDER: Please draw a ☆ next to any topic you would like your teacher to review with you or the whole class upon returning to school in the fall

Topic 1: Simplifying Expressions

    1.   6 + (5 + x)

    2.   12(x + 3)

Topic 2: Writing Expressions (Simplify when possible)

Write each phrase as an algebraic expression

    3.   The sum of 28 and 3x

    4.   The difference between 5a and b

    5.   The quotient of x and y

    6.   The product of 2x and 4y

Topic 3: Fraction Arithmetic (Simplify when possible)

    7. $\frac{3}{4} + \frac{1}{8}$

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

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

    10. $\frac{7}{9} - \frac{1}{3}$

    11. $\frac{5}{13} * \frac{4}{5}$

    12. $\frac{11}{12} * 6$

13. $1\frac{4}{5} * 3\frac{2}{3}$ 14. $\frac{7}{9} \div \frac{21}{18}$ 15. $3\frac{5}{6} \div 1\frac{2}{3}$

Topic 3: Decimal Arithmetic

16.   6.23 + 0.4   17.   4.18 - 1.53   18.   (.87)(21)

19.   2.7*9.04   20.   4.38 ÷ 12   21. $\frac{31.75}{5}$

Topic 4: Converting Between Fractions, Decimals, and Percents

Write each decimal as a fraction in simplest form.

22.   0.9   23.   0.64   24.   7.2

Write each fraction as a decimal

25. $\frac{7}{10}$ 26. $\frac{3}{25}$ 27. $\frac{5}{6}$

5

Write each fraction as a percent

28. $\dfrac{2}{25}$

29. $\dfrac{3}{8}$

Write each percent as a fraction

30. 45%

31. 34%

Write each decimal as a percent

32. 0.52

33. 5.12

Topic 5: Ratios & Percents

Solve the following:

34. Find 75% of 80

35. Write a ratio 2 red crayons to 5 blue crayons

36. Write a *unit rate* for 18 necklaces made in 3 hours

37. A snowmobile is traveling at a speed of 88 ft per second. Determine the number of seconds it takes for the snowmobile to travel 528 ft.

Topic 6: Solving One-Step Equations

Show all inverse operations!

38. m - 7 = 3

39. x + 2 = 9

40. a + 5.5 = 17.3

41. $\dfrac{x}{10} = 7$

42. 3b = 12

43. $24 = \dfrac{2}{3}x$

Topic 7: Positive and Negative Numbers

44. Put the following in order from least to greatest:

-2, 0, -10, 24, -382, 1½
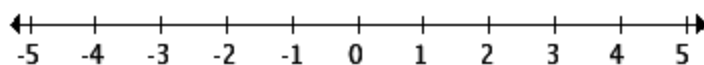
45.   Place the following values on a number line:

A = -3   B = 2.5   C = 0   D = -1 ⅓   E = ⅘

-5   -4   -3   -2   -1   0   1   2   3   4   5

Topic 8: Coordinate Plane

46.   Plot the following ordered pairs on the coordinate plane below:

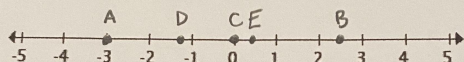A (0, 3)   B (-2, 0)   C (-2, 5)   D (3, -2)   E (5, 7)   F (-1, -4)
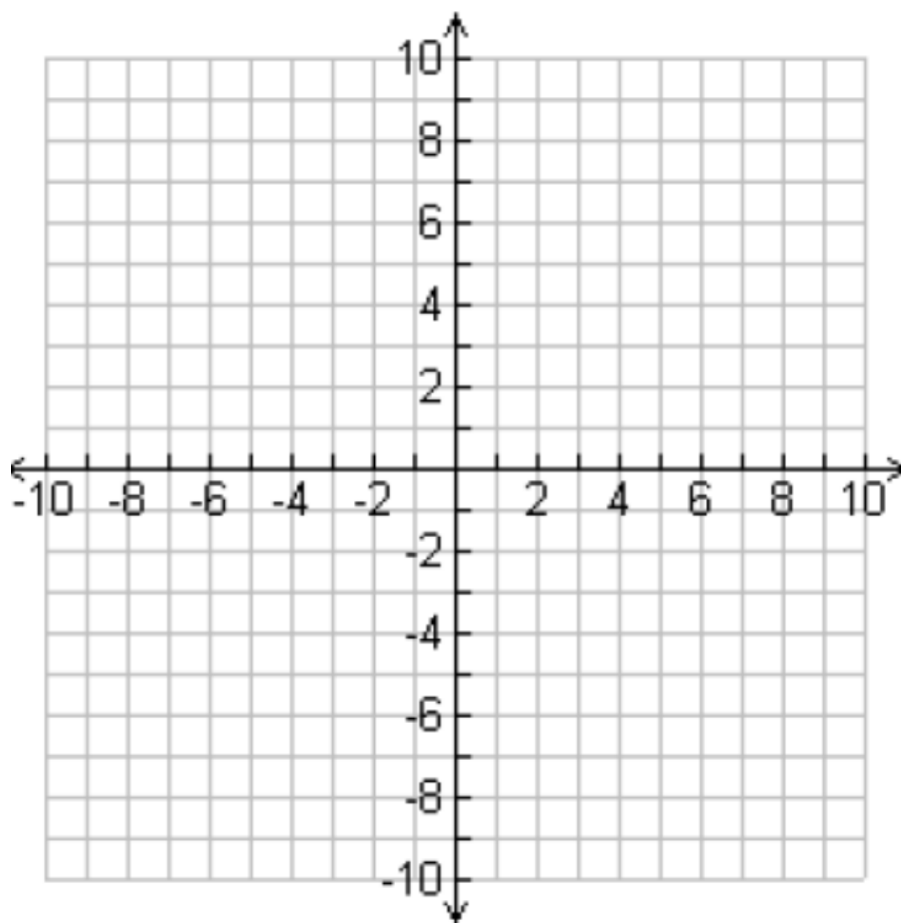
Answer Key:

1. 11 + x	18. 18.27	35. $\dfrac{2}{5}$

2. 12x + 36	**19.** 24.408	**36. 6 necklaces/hr**
3. 28 + 3x	**20.** 0.365	**37.** 6 seconds
4. 5a - b	**21.** 6.35	**38.** m = 10
5. x/y	**22.** $\dfrac{9}{10}$	**39.** x = 7
6. 8xy	**23.** $\dfrac{16}{25}$	**40.** a = 11.8
7. $\dfrac{7}{8}$	**24.** $7\dfrac{1}{5}$ or $\dfrac{36}{5}$	**41.** x = 70
8. $\dfrac{19}{30}$	**25.** 0.7	**42.** b = 4
9. $2\dfrac{3}{20}$ **or** $\dfrac{43}{20}$	**26.** 0.12	**43.** x = 36
10. $\dfrac{4}{9}$	**27.** $0.8\overline{3}$	**44.** -382, -10, -2, 0, $1\dfrac{1}{2}$, 24
11. $\dfrac{4}{13}$	**28.** 8%	**45. <<see graph below>>**
12. $5\dfrac{1}{2}$ or $\dfrac{11}{2}$	**29.** 37.5%	**46. <<see graph below>>**
13. $6\dfrac{3}{5}$ **or** $\dfrac{33}{5}$	**30.** $\dfrac{9}{20}$	
14. $\dfrac{2}{3}$	**31.** $\dfrac{17}{50}$	
15. $2\dfrac{3}{10}$ **or** $\dfrac{23}{10}$	**32.** 52%	
16. 6.63	**33.** 512%	
17. 2.65	**34.** 60	

45. Place the following values on a number line:

A = -3   B = 2.5   C = 0   D = -1 ⅓   E = ⅖

46. Plot the following ordered pairs on the coordinate plane below:

A (0, 3)   B (-2, 0)   C (-2, 5)   D (3, -2)   E (5, 7)   F (-1, -4)