# Summer Assignment for incoming 8th-Grade Students – Greenwood Lakes Middle School

Name: _____

Command of the topics in this assignment are important to be successful in Pre-Algebra. These problems should all be completed correctly (not attempted), and *all work must be shown*. It is your responsibility to know and understand these topics before the start of the school year. There is **NO CALCULATOR** to be used on this assignment. This assignment will be due the week of August 10th; a specific date will be given by your teacher.

## ALL work MUST be shown.

Simplify.

1) $4w + 5n - 8 + 2w - 4n + 9$

2) $5(3r - 4) + 6r + 28$

3) $3m^2 + 5m - m^2 + m + 3$

Solve the equation.

4) $14 = d - 6$

5) $5 + c = 10$

6) $5m = 11$

7) $\frac{f}{6} = 2$

8) $-8 = 5z + 16$

9) $\frac{f}{6} - 2 = -14$

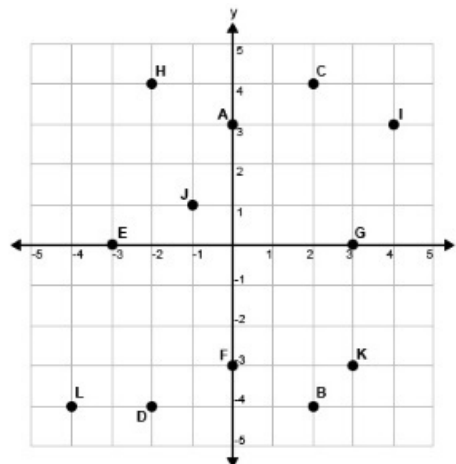10) $-2r + 5 = 13$

11) $-4m + 10 \leq 2$

12) Find the coordinates of the following points.

A) _____   B) _____   C) _____

D) _____   E) _____   F) _____

G) _____   H) _____   I) _____

J) _____   K) _____   L) _____



Convert each fraction to a decimal.

Example: Convert $\frac{1}{4}$ into a decimal through division.

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          0.25
   ┌─────────
 4 │ 1.00
     - 8
     ───
       20
     - 20
       ───
        0
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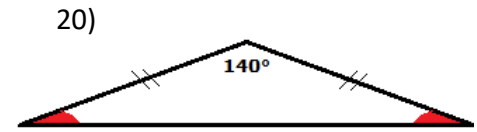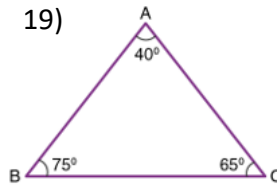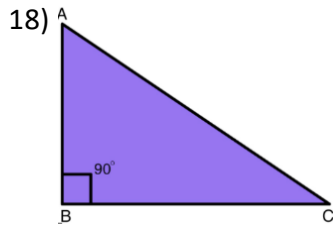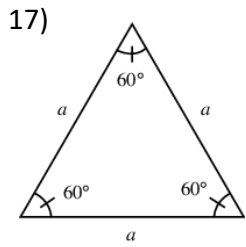denominator    numerator

13) $\frac{1}{5} =$

14) $\frac{3}{8} =$

15) $\frac{10}{12} =$

16) $\frac{7}{10} =$

Classify each triangle below by its angle measures (acute, right, obtuse) and by its side lengths (scalene, equilateral, isosceles).

17)



18)



19)



20)



Solve.

21)  $-6 + 4 =$ _____

22) $-2 + 7 =$ _____

23) $-9 - (-4) =$ _____

24) $14 - 26 =$ _____

25) $-4(-5) =$ _____

26) $\frac{8(-4)(-3)}{-6} =$ _____

27) $-\frac{5}{6}(-\frac{18}{30}) =$ _____

28) A family of 4 paid $72.48 to attend a movie. Given that each ticket costs the same amount, how much did it cost per person?

29) It took Malia $1\frac{1}{2}$ hours to run $6\frac{3}{4}$ miles. How many miles does she run per hour?

Evaluate the expression when a = 3, b = −2, c = 4.

30) $bc - a$

31) $\frac{c}{-2} - a^2$

32) $-a^4$

33) $5c - b + a$

Expand and evaluate the following. Example: $2^3 = 2 \times 2 \times 2 = 8$

34) $6^2$

35) $5^3$

36) $(\frac{2}{5})^3$

37) $(\frac{7}{9})^4$

Write an expression.

38)  6 less than the sum of 4 and $n$.

39) 8 more than the quotient of $c$ and 3.