Rising 8th Grade
Summer Math Packet

Integer operations (Show your work on the problems with more than one step. Don't use a calculator.)

6 + (-7) =	(-4) + (-5) =	6 + (-9) =	7 - (-3) =
5 + (-10) =	6 - (-6) =	14 + (-4) =	(-5) - 7 =
-15 + 8 =	-8 - (-19) =	-7 - 6 =	-9 - (-2) =
29 - 16 + (-5) =	-15 + 8 - (-19) =	45 - (-13) + (-14) =	-15 - 6 - 9 =
-7 + (-6) - 7 =	29 - 56 - 78 =	17 + (-7) - (-5) =	45 - (-9) + 5 =
4 (-3) =	(-12) (-4) =	(-8)(-3) =	8 (-4 - 6) =
$\frac{-14}{2} =$	$\frac{28}{-4} =$	$\frac{-36}{-6} =$	-6 (9 - 11) =
$\frac{(-5)(-6)}{-2} =$	$\frac{6(-4)}{8} =$	$\frac{-56}{2^3} =$	$\frac{-6-(-8)}{-2} =$
$\frac{8-(-4)}{6-2}$	$\frac{4-(-4)}{6-4}$	$\frac{4-7}{8-6}$	$\frac{2-5}{-5-1}$
45 - 4 (5 - (-3)) =	(-4 + 7) (-5 + 3) =	$\frac{4+(-6)-5-3}{-6+4} =$	$(-2)^3(-5-(-6)) =$

Solving equations (Show your work/steps.)

x + 8 = 13	t - 9 = 4	4t = -12	$\frac{r}{4} = 24$
3 = y - 4	$\frac{p}{8} = -16$	5 = 8 + h	-5k = 20
9 - p = 17	3x + 4 = -2	8x - 29 = -5	3(x + 7) = 18
$\frac{m}{-5} + 6 = -4$	½x – 7 = -3	$10b + 9 - 3b = 2$	$\frac{x}{3} - 7 = 6$
5g + 3 = -12	-4r + 5 = 25	¼x + 2 = -1	9x + 5 = 8

Solve the following word problems.

The length of a rectangular field is 75 yards. This is 3 more than twice the width. • Write an equation for the situation. • How wide is the field?	You bought a magazine for $5 and 4 Gatorades. You spent a total of $13? • Write an equation for the situation. • How much does each Gatorade cost?	Tasha is 5 years less than twice as old as Luke. If Tasha is 23 years old, how old is Luke. • Write an equation for the situation. • How old is Luke?

Combine like terms

$x^2 + 4x - 3x^2 + 8$	$3y - 5x + 7x - 10y$	$15 - 8xy - 30 + 7x$	$2x - 5x + 3x + x$

Coordinate plane

Give the ordered pair for each location.

A _____

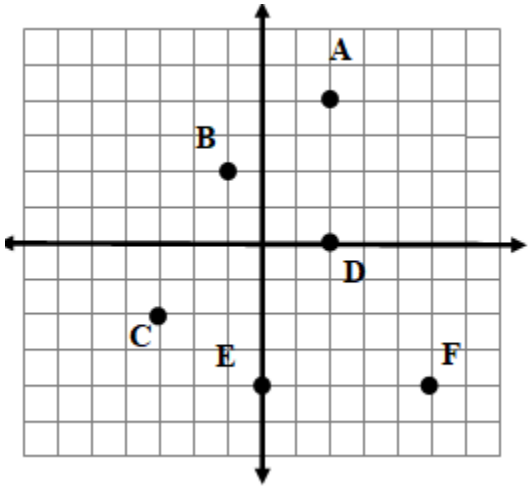
B _____

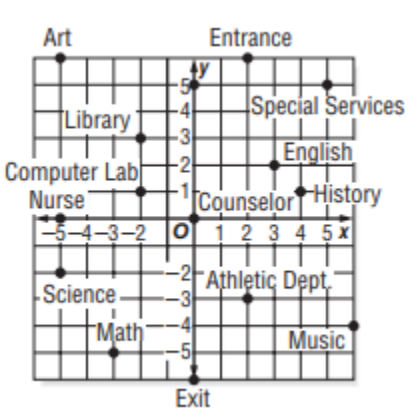
C _____

D _____

E _____

F _____





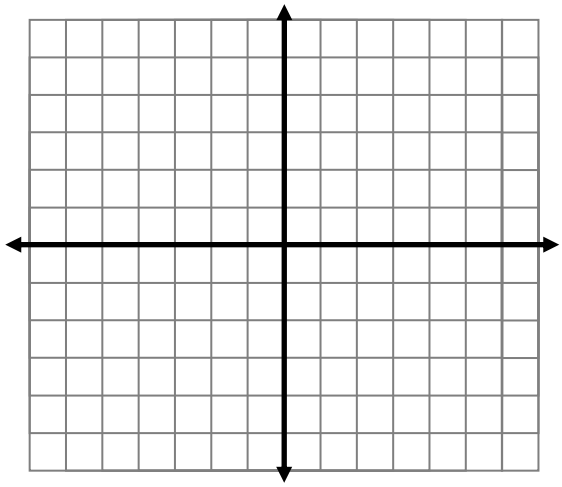
- How far apart are the counselor and the nurse's office?
- What ordered pair represents the athletic department?
- Explain how to get from the computer lab to the entrance of the school?

- What is the distance between the library and computer lab?
- What ordered pair represents the art room?

Plot the following points on the coordinate grid.

A (3, 5)
B (-2, -3)
C (-6, 4)
D (0, -5)
E (2, -4)

- What ordered pair would be 3 units to the right of point C?
- What ordered pair would be 5 units up from point D?
- What ordered pair would be 2 units left of point A?



It is very important that you are comfortable with operations with negative numbers. You should be able to answer -8 – 6 with the same ease that you do 8 – 6. You will struggle through 8th grade if you have difficulty with this concept. If you are unsure of the rules for integer operations, I would look online for extra help. You should also be able to navigate around a coordinate plane. More than half of the 8th grade curriculum involves the coordinate plane, to include transformations on a coordinate plane and graphing linear equations.

For help completing this packet, extra practice, or enrichment:

https://www.ixl.com/standards/georgia/math/grade-7 has practice problems for all of the standards you should have learned last year. You could also preview some of the 6th grade ones if you have time.

https://www.funbrain.com/math-zone has math and logic games by grade level.

Khan Academy has helpful videos and self-guided practice problems for every grade level. Go to www.khanacademy.org to get started.

http://www.coolmath.com/ has help and video by topic. It also has a link to a cool math games that will keep you busy all summer!