



## Algebra & Operations 5th/6th

1	Evaluate $1562 + 59$ .
2	I have a bag of marbles. If I take 5 out and give them to my friend, I have 7 marbles left. How many marbles were there in my bag originally?
3	If $x = 2y$ , and $y = 2$ , what is $2x$ ?
4	A square has its center on the origin. What is the sum of the X coordinates of its vertices?
5	A snail is climbing a ladder. He can climb 8 centimeters during each day and he slides down 5 centimeters every night. How many centimeters can he travel in 5 complete days?
6	Joey the mad scientist can make from 5 to 7 inventions a month. What is the minimum amount of months he needs to make 33 inventions for his boss?
7	Solve the following system of equations for x as an improper fraction $3x + y = 5$ $x - 5y = 12$
8	John has a magic linear function with the form $f(x) = ax+b$ . If you put in 5 for x, he gives you back 9 for $f(x)$ . If you put in 9, he gives you back 21. What does he give you if you put in 11?
9	The population of Petersville grows by 20% every year. If its population is 1,728,000 in 2014, what was its population in 2011?
10	There exist three integers a,b,c that satisfy $a^2+b^2=c^2$ . Given that 7 is the smallest value among a, b, and c, what is the sum of all possible values of c?