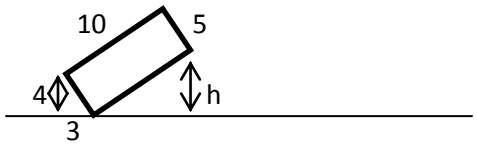
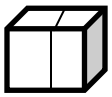
Hoover High School Pre-Algebra Ciphering 2012

2x+1	P	Simplify the following: $\frac{14x+7}{7}$
117600	1-1	How many locker combinations can be made using three integers from 0-49 inclusive if each integer can only be used once in the combination?
87°	1-2	The sum of the first three interior angles in a convex pentagon is 345°. The 4th angle is equal to the average of all five angles. Find the measure of the 5th angle.
-1	1-3	A square is drawn on a coordinate plane such that two sides have slopes of 1. Find the slope of the other two sides.
6	1-4	Find the units digit of 2012^{2012}.
0	1-5	Find the value of a + b + c, given that 1 + a = b, b + c = d, and d = 1 – b.
-9	2-1	Solve for x: $\frac{x}{1+\frac{2}{3+4}} = 2 + x$
84.4%	2-2	The average of the 22 test scores in Dr. Kustos' 2nd period class is 90%. The average of his 4th period class which has 28 students is an 80%. Find the average of the two classes combined.
100	2-3	The growth rate of a vine is 10% in length every 24 hours. If a vine is 121 feet in length now, how many feet long was it 48 hours ago?
6	2-4	A rectangular box is tilted as shown. Find the height, h above the ground. (units are in inches) 
4	2-5	Simplify: $\frac{3^4+3^4+3^4+3^4}{3^3+3^3+3^3}$
47	3-1	Find the following sum in base 10: $30_4 + 101_2 + 50_6$
100	3-2	A cube with surface area of 150 sq. units is cut in half as shown. Find the surface area of one of the new shapes. 
2	3-3	A cylindrical can fits three balls perfectly inside. The volume of the can is 48π cubic units. Find the radius of one ball.
$1x10^{-4}$	3-4	Simplify and write the answer in scientific notation: $\frac{(3.14 \times 10^{17})(3.14 \times 10^{-17})}{(314)^2}$
20	3-5	Half of a number is equal to the original number decreased by 10. Find the number.
100/81	4-1	Find $11.\overline{1}$% of $11.\overline{1}$, written as a fraction.
50	4-2	If the pattern continues, what is the value of 100 – 99 + 98 – 97 + 96 – 95 +…+ 6 – 5 + 4 – 3 + 2 – 1?
7	4-3	One hamburger, two drinks and four orders of fries cost $10. Two hamburgers, a drink and one order of fries cost $13. Two hamburgers and two drinks and no fries cost $12. What would the total cost be if you got one of each, in dollars?
x=0, 36	4-4	Find both solutions to the equation $x^2 - 36x = 0$.
3rd	4-5	What quadrant does the line $\frac{x}{2} + \frac{2y}{3} = 10$ not pass through?
$4\sqrt{10}$	E-1	Find the distance between the x-intercept and y-intercept of the line y = 3x + 12.
$20+ 10\sqrt{2}$	E-2	The area enclosed by an isosceles right triangle is 50 units^2. Find the triangle's perimeter.