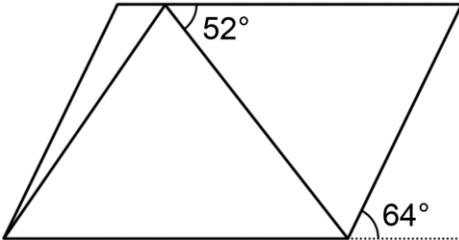
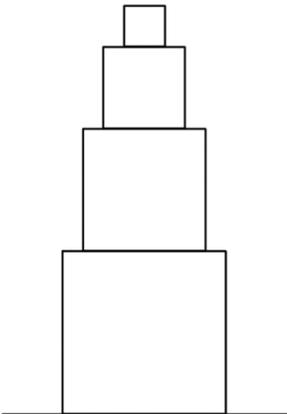




Geometry 5th/6th

1	What is the perimeter of a rectangle with side lengths 4 units and 6 units?
2	If a circle has a circumference of 10 feet, what is its area, in square feet?
3	You wake up one morning to find that a box has been delivered to your door. If the box measures 3 inches by 4 inches by 5 inches, what is its outside surface area, in square inches?
4	For being such a bright and motivated student, Mohammad receives three cubes of Turkish delight from his teacher. If each cube has a side length of 2 cm, how many cubic centimeters of Turkish delight did Mohammad receive?
5	The glue in Samir’s glue stick is shaped like a cylinder with a base radius of 1 cm and a height of 6 cm. If Samir always applies a 0.5-mm thick layer of glue when he uses this glue stick, how many square centimeters of paper can he cover with glue?
6	A parallelogram has an area of 10 square meters. If a triangle is drawn inside the parallelogram as shown, what is the area of the triangle, in square meters? 
7	On an adventure in the Cartesian plane, you come across a slide represented by the function $y = -\frac{5}{12}x + 5$. If you slide down from the y -intercept at a constant speed of $\frac{3}{4}$ unit per second, how many seconds will it take you to reach the x -intercept?
8	Anna sets a cube with side length 4 inches on her desk. She then stacks three more cubes with side lengths 3 inches, 2 inches, and 1 inch, respectively, on top of the first cube. What is the total exposed surface area of Anna’s cube tower, in square inches? 

9	While doodling on her homework, Amy draws a triangle. One side of the triangle measures 7 mm and another side measures 4 mm. If the third side's length in millimeters is a prime number, what is the sum of all possible values of the triangle's perimeter, in millimeters?
10	Given that the area under the graph of $f(x)$ from $x = a$ to $x = b$ can be calculated with the definite integral $\int_a^b f(x)dx$, and the volume of the solid produced by revolving the portion of $f(x)$ from $x = a$ to $x = b$ around the x -axis can be calculated with the definite integral $\int_a^b \pi f^2(x)dx$, what is the area of a triangle with height a units and base length b units, in terms of a and b ?