GEOMETRY

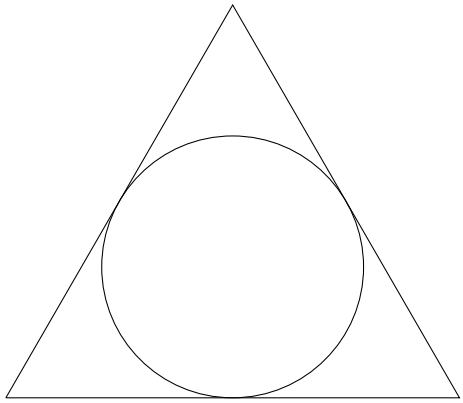
TEXT: 1.1, 1.2

LAST NAME	FIRST NAME	DATE

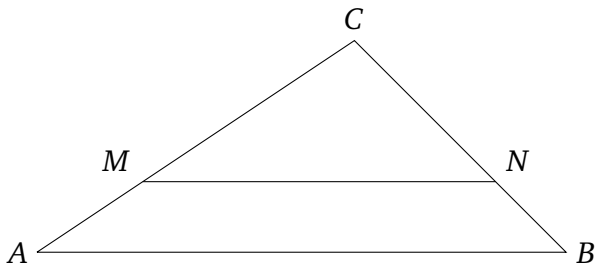
1 (2 points)**.** Find the area of the right triangle ABC with one of the legs $a = 6$ and the hypotenuse $c = \sqrt{85}$.

2 (2 points)**.** Find the area of an equilateral triangle with each side of length 1.

3 (2 points)**.** Find the area of the circle inscribed into an equilateral triangle with each side of length 4 feet.



4 (3 points). If $AM = 3$, $MC = 9$, $MN = 10$, $CB = 8$, and the the lines MN and AB are parallel, find the length of the segments NC, BN, and AB.



$NC =$ $BN =$ $AB =$

5 (3 points). A 5 meter tall lamp post shines on a child who is 1.2 meters tall, and creates a shadow that is 3.6 meters long.

(a) Make a sketch of the problem and identify similar triangles.

(b) Find the distance between the child and the lamp post.

(c) Find the distance the light travels from the lamp to the far tip of the shadow.