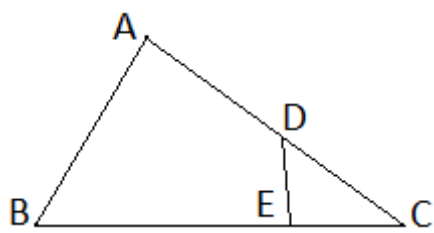
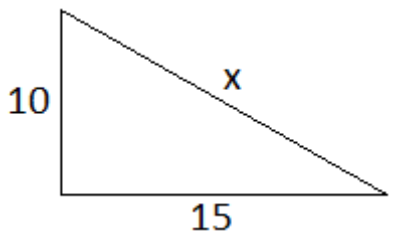




# Geometry 5th/6th

1	An equilateral triangle and a square have the same perimeter. If the square has an area of 36 square units, what is the area of the triangle in square units?
2	Triangle $ABC$ has side lengths $AB = 6$ , $BC = 12$ , and $AC = 9$ . Point $D$ is on $AC$ such that $AD = 5$ and $DC = 4$ . Point $E$ is on $BC$ such that $BE = 9$ and $EC = 3$ . Find $DE$ . 
3	Given the right triangle below, what integer is closest to the value of $x$ ? 
4	Points $A, B, C$ , and $D$ lie on a line in alphabetical order. If $BC = CD$ , $AB = 10$ and $AD = 38$ , what is the value of $BC$ ?
5	What is the area of the region formed when the point $(3, 7)$ is rotated completely around the point $(-5, 1)$ ?
6	The point $A(7, 14)$ is reflected across the $y$ -axis to $A'$ . If point $O$ represents the origin of the coordinate plane, what is the area of triangle $OAA'$ ?
7	An equilateral triangle $ABC$ and a regular pentagon $ACDEF$ share a side $AC$ and do not overlap. What is the measure of angle $CBF$ , in degrees?
8	Foris is shoveling snow from his 20 foot by 50 foot driveway. If one foot of snow has fallen on the ground, what volume of snow will he have to shovel, in cubic feet?
9	The roads between the towns of Camelot, Tel Aviv, and Houston form an equilateral triangle. If I drove 54 miles this week from Camelot to Houston, how far will I have to drive next week to get to Tel Aviv?
10	Gandalf wants to ride his horse Shadowfax between Hobbiton and Rivendell. If the locations of Hobbiton and Rivendell are defined by the points $(3, -1)$ and $(6, 2)$ respectively, what is the shortest distance Gandalf will have to ride?