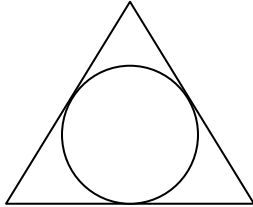
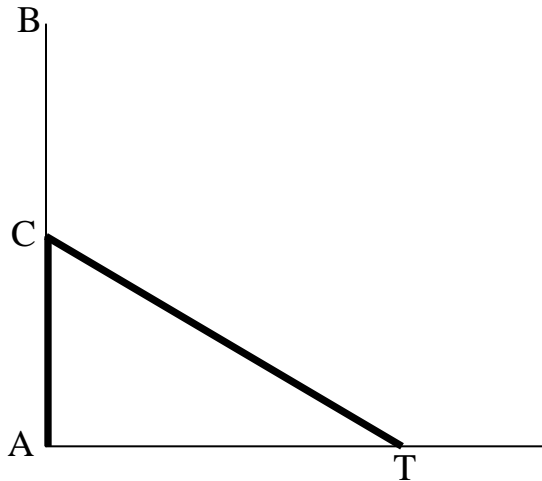


Pythagorean Theorem Challenge questions

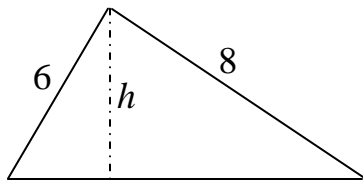
1. A circle is inscribed in an equilateral triangle of length 6.
Find the radius of the circle



2. A vertical pole AB measuring 5 m snaps at point C. The pole remains in contact at point C and the top of the pole touches the ground at point T, a distance of 3 m from point A. Find AB



3. A slide is made by joining a 6 foot ladder to an 8 foot chute at right angles. Find the vertical height of the pole



4.

A diagram showing a horizontal line of length 50 units starting from a point labeled 'start' and ending at a point labeled 'Plane crash'. Below the line, there is a rectangular area with dimensions 5 by 7. Inside this rectangle, there is a smaller square with side length 2. The word 'start' is written inside the small square. A dotted line connects the 'start' point to the 'Plane crash' point.

Determine the distance between the start and the plane crash.