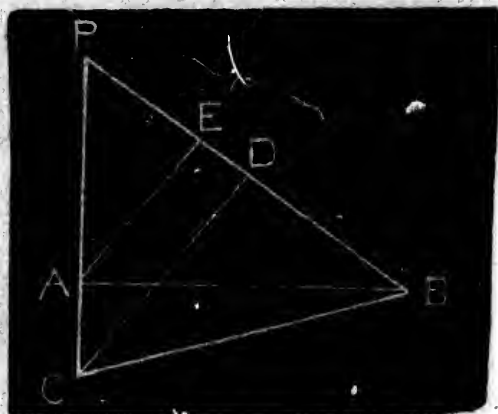


$$\frac{1254528^2 \times 20}{6272640} = 4x \therefore x = 1254528.$$

$1254528 \times 4 \div 20 = 250905.6 = \text{area of the square.}$

46. A tree standing in the water is just 15 feet above the surface. When the wind is blowing the tree is bent over and touches the surface 20 feet from where it stood. Find the length of the pole or tree.

Let the line AB represent the water; CP the pole or tree. When P touches the water at B , CB must be equal CP .
 \therefore triangle BCP is isosceles —
 $AB = 20$ feet
 $\therefore AP = 15 \therefore$



$$\begin{aligned} & \sqrt{20^2 + 15^2} \\ & = 25 = PB \therefore PD \text{ or } DB = 12\frac{1}{2}; \perp AE = 12, \\ & \text{and } PE = 9; \text{ then } 9 : 12 :: 12\frac{1}{2} : 16\frac{2}{3} = CD. \\ & \text{Then } \sqrt{CD^2 + PD^2} = \sqrt{12\frac{1}{2}^2 + 16\frac{2}{3}^2} = CP \\ & = 20\frac{5}{8}, \text{ length } CP, \text{ as required.} \end{aligned}$$