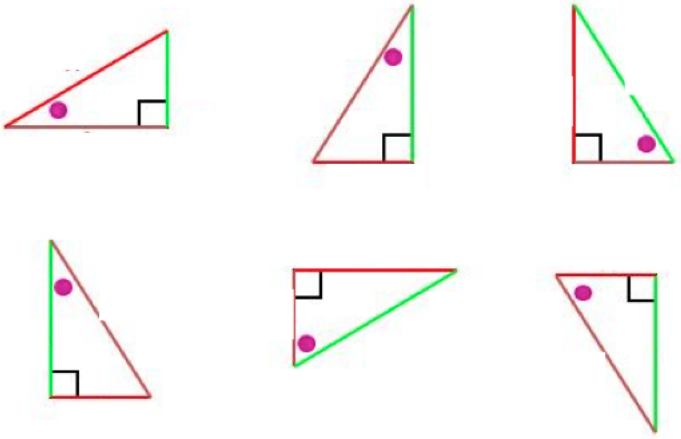
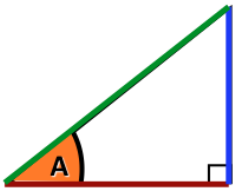
Introduction to Right Triangle Trigonometry

On each triangle below, the angle marked with the dot is the reference angle.
Mark the sides with an “O” for opposite, “A” for adjacent, and “H”
for hypotenuse based on the reference angle.



Trigonometric Ratios

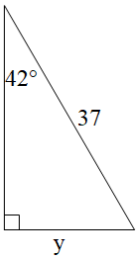


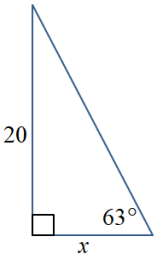
Sin A =

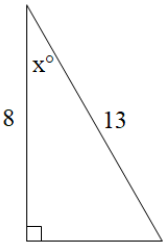
Cos A =

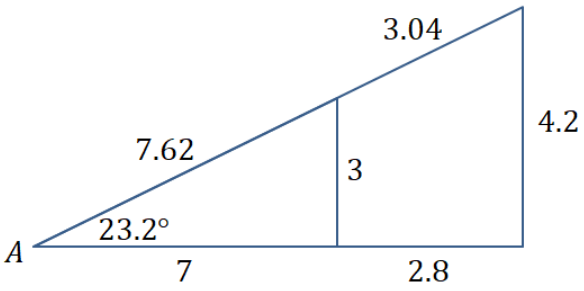
Tan A =

Sample Problems:



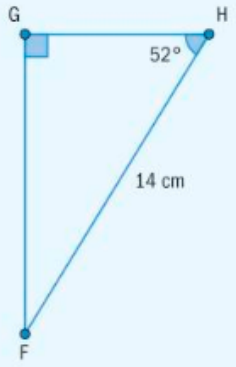




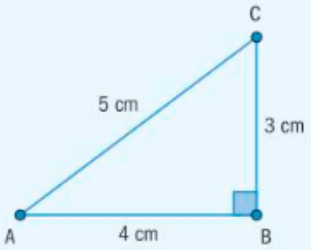


PRACTICE:

Shown here is the right-angled triangle ΔFGH, where FH = 14 cm, $F\hat{H}G = 52°$ and angle $F\hat{G}H = 90°$. Find the length of side [GH].



Find the size of $\hat{A}$ in triangle ΔABC, where angle $A\hat{B}C = 90°$.



Emma is standing in front of a big tree. She measures her distance from the tree as AB = 15 m. She also measures $\hat{A} = 40^{\circ}$. Find the length BC. State what other information Emma needs in order to calculate the height of the tree.

