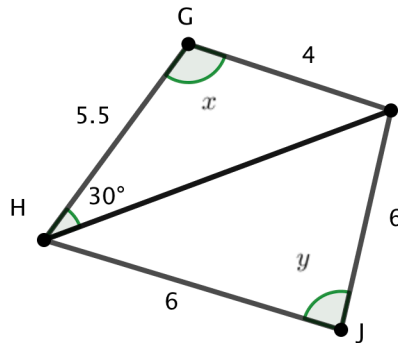




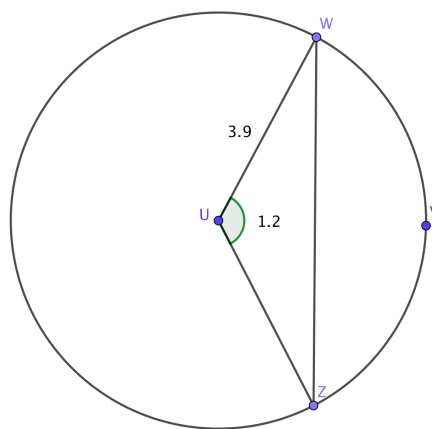
Trigonometry GDC

Name.....

- (1) GHIJ is a quadrilateral field with all measurements in m.



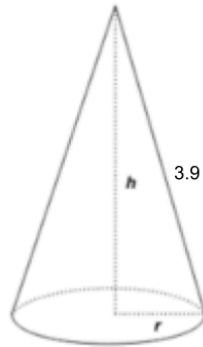
- (a) Find angle x .
- (b) Find HI
- (c) Find angle y .
- (d) The field is sprayed with an insecticide, which costs \$3.50 per m^2 . Find the cost of spraying the field.
- (2) The following is a circle radius 3.9cm with centre U.



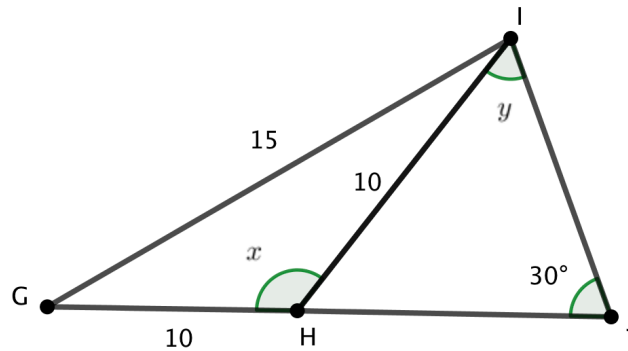
- (a) Find the area of the segment enclosed by the line WZ and the arc ZVW.



- (b) Find the area of the **major** sector enclosed by the circle and points U, W, Z.
- (ii) The major sector region is cut out and folded to make a cone with circular base, radius r and height h . Find r and h .



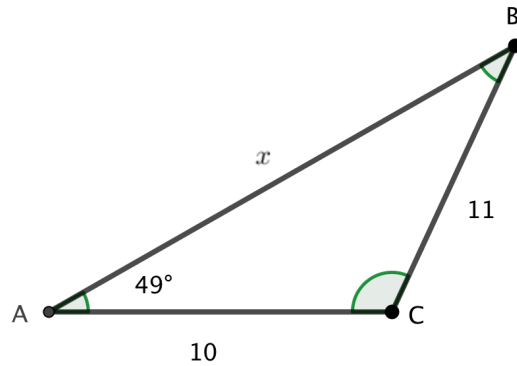
- (3) In the following shape GH is 10cm. GI is 15cm. HI is 10cm. IJ is 7cm. Points GHJ lie on a straight line.



- (a) Find x
- (b) Find y

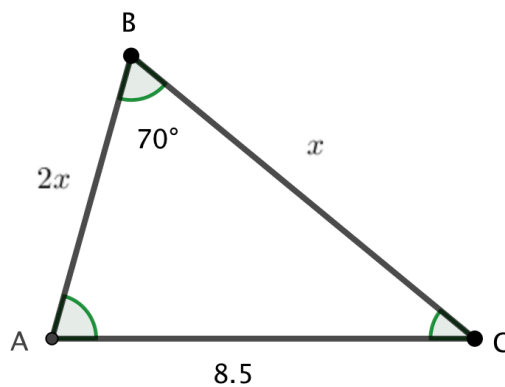


- (4) In the following triangle ABC all distances are in metres.



Show that there is only one possible value for x and find that value.

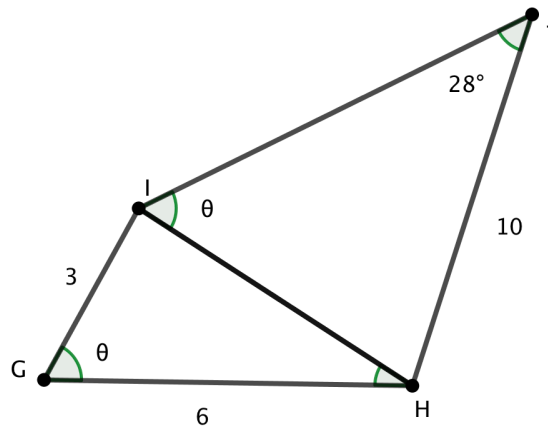
- (5) In the following triangle ABC all distances are in metres.



Find x



(6)



- (a) Use the cosine rule with triangle GHI to show that $HI = \sqrt{45 - 36\cos\theta}$
- (b) Use the sine rule with triangle HIJ to find another expression for HI.
- (c) **Hence** find the possible lengths HI.