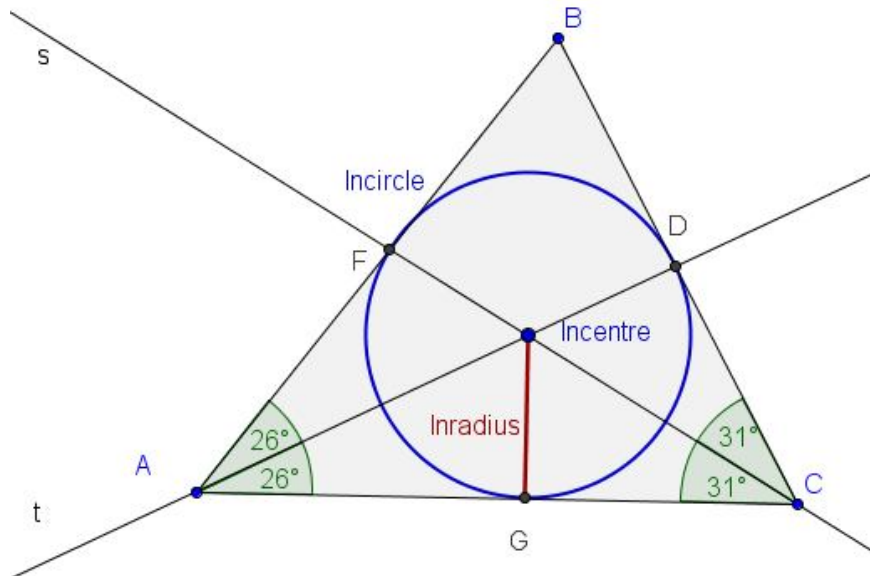


Student Activity Construction 17

Use in connection with interactive file "Constr 17" on the Student's CD.

Construction 17: To construct an Incentre and incircle of a given triangle, using only straight edge and compass.



1. What is the value of the angle CAD?

2. What is the value of the angle DAB?

3. What is the relationship between the line d and the angle CAB?

4. What is the value of the angle ABE?

5. What is the value of the angle EBC?

6. What is the relationship between the line b and the angle ABC?

7. What is the value of the angle BCF?

8. What is the value of the angle FCA?

9. What is the relationship between the line h and the angle BCA?

10. At what point do the three angle bisectors of the angles meet?

11. What is the relationship between the line segment called the inradius and the line segment AC?

12. What do you notice about the incircle, no matter where we move the points A, B or C on the interactive file?

13. Describe how to draw the incentre of a triangle.

14. A gardener wants to install a circular pond in their triangular garden. Using geometry how could they find the centre of the pond?

15. Draw 2 triangles on a sheet of paper and find their incentre, incircle and inradius.