

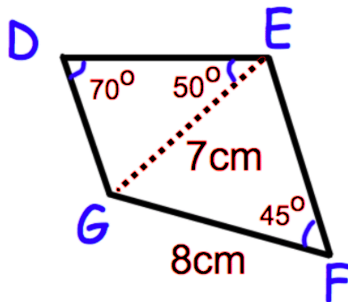


A, B and C have coordinates  
(2, 9), (10, -7) and (6, k) respectively.

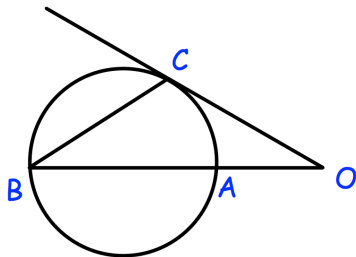
AB is perpendicular to AC  
Find k

The point (6, 8) lies on a circle with  
centre (0, 0)

Write down the coordinates of another  
three points on the circle.



Angle GEF is acute.  
Calculate the area of DEFG



OAB is a straight line and OC is a  
tangent to the circle.

Prove OBC and OAC are similar

Solve  $\frac{5}{3x-4} + \frac{2}{x-1} = 1$

Give your answers to 2 decimal  
places.