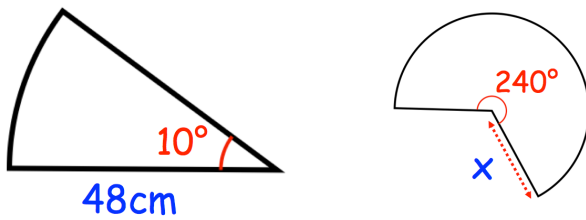


**18th November**

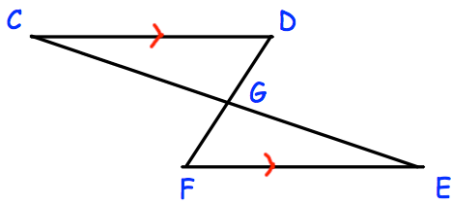
Corbettmaths

Simplify fully

$$\frac{3x^2 + 20x - 7}{16x^2 - 1} \div \frac{x + 7}{4x + 1}$$



The two sectors have the same area.  
Find  $x$



In the diagram, the lines CE and DF intersect at G.  
CD and FE are parallel and  $CD = FE$ .  
Prove that triangles CDG and EFG are congruent.

The curve C has equation  
 $y = x^2 + ax + b$

The minimum point of C has  
coordinates  $(-4, 6)$

Find  $a$  and  $b$

Prove that when two consecutive integers are squared, that the difference is equal to the sum of the two consecutive integers.