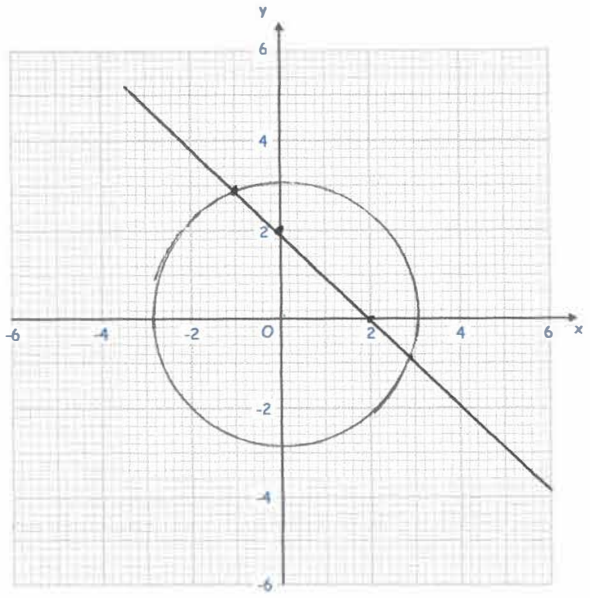
1st April

Corbettmaths



Using the grid, solve the equations

$x^2 + y^2 = 9$
$x + y = 2$

$x = -1$ or $x = 2.9$
$y = 2.9$ or $y = -0.9$

Given

$f(x) = \frac{x-9}{3}$

$g(x) = 5x - 7$

$y = \frac{x-9}{3}$
$3y = x - 9$
$3y + 9 = x$
$f^{-1}(x) = 3x + 9$

Solve

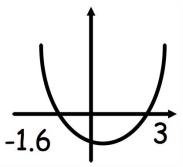
$f^{-1}(x) = g(x)$

$3x + 9 = 5x - 7$
$3x + 16 = 5x$
$16 = 2x$
$x = 8$

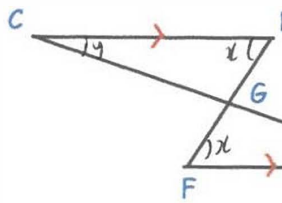
Solve $5x^2 - 7x - 24 \geq 0$

$(5x + 8)(x - 3)$

$x = -1.6$ or $x = 3$



$x \leq -1.6$ or $x \geq 3$



$\angle CDG = \angle EFG$ (alternate angles)
$\angle DCG = \angle FEG$ (alternate angles)
$CD = FE$

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.

ASA