

14th September



Corbettm@ths

$f(x) = x^2 - 3$
 $g(x) = 2x + 1$
 $h(x) = \frac{x}{2}$

Find $fg(x)$

$(2x+1)^2 - 3$
 $4x^2 + 4x + 1 - 3$
 $fg(x) = 4x^2 + 4x - 2$

Find $gh(x)$

$2\left(\frac{x}{2}\right) + 1$
 $gh(x) = x + 1$

Find $g^{-1}(x)$

~~$g^{-1}(x)$~~
 $y = 2x + 1$
 $y - 1 = 2x$
 $x = \frac{y-1}{2}$
 $g^{-1}(x) = \frac{x-1}{2}$

Solve the inequality $x^2 - 9x + 14 \leq 0$

$(x-2)(x-7)$

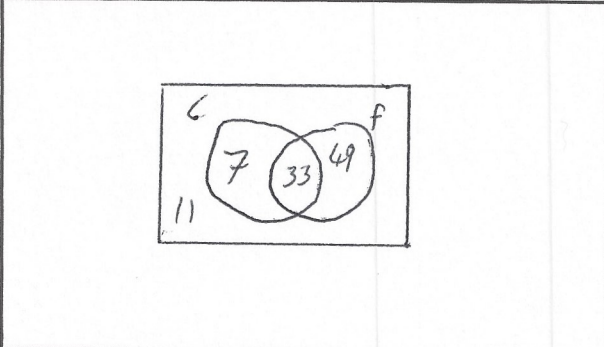
$2 \leq x \leq 7$

A group of friends have been surveyed.

40% have been to Canada.
 82% have been to France.
 11% have been to neither Canada or France.

Find the percentage of the group that have been to Canada and France.

33%



Explain why

$\cos 45 = \frac{\sqrt{2}}{2}$

$\cos 45 = \frac{1}{\sqrt{2}} \times \sqrt{2}$
 $= \frac{\sqrt{2}}{2}$ QED

