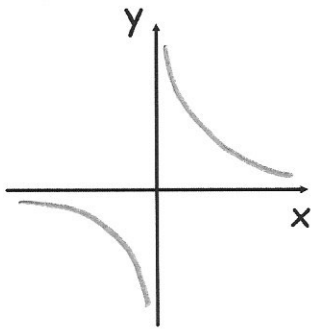
29th October **Higher Plus 5-a-day**

Corbettmaths

Sketch

$$y = \frac{1}{x}$$



$f(x) = (x+5)^3$

Work out the value of

$f^{-1}(-27)$ $\sqrt[3]{-27} = -3$

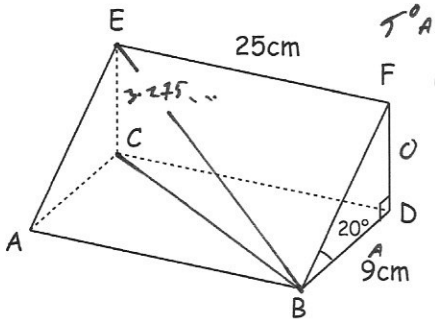
$-3 - 5 = -8$

$y = (x+5)^3$

$\sqrt[3]{y} = x+5$

$\sqrt[3]{y} - 5 = x$

$f^{-1}(x) = \sqrt[3]{x} - 5$



$\tan 20° = \frac{OF}{9}$

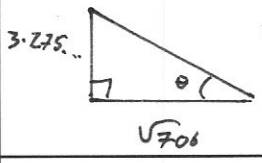
$OF = 9 \times \tan 20$

$= 3.275...$

Work out the size of angle CBE

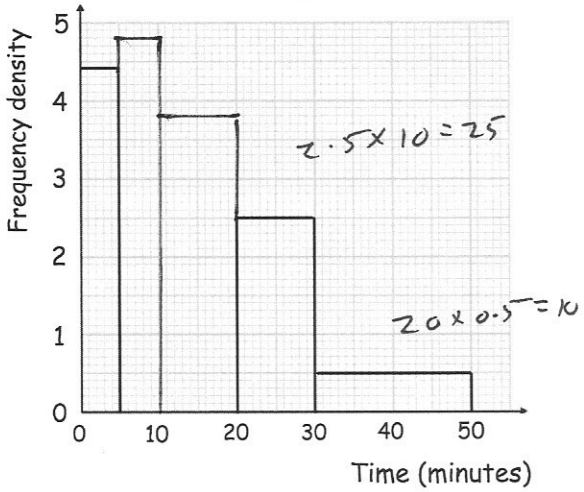
$BC^2 = 25^2 + 9^2$

$BC = \sqrt{706}$



$\tan^{-1}\frac{3.27...}{\sqrt{706}} = 7.03°$

The histogram and frequency table show some information about how many minutes late some flights were.



Complete the histogram and frequency table.

Minutes late, t	Frequency
$0 < t \leq 5$	22
$5 < t \leq 10$	24
$10 < t \leq 20$	38
$20 < t \leq 30$	25
$30 < t \leq 50$	10

5 | 30

30 flights were more than X minutes late.

Calculate an estimate of X.

$20 + \frac{5}{25} \times 10 = 22$ mins