A - Level Further Maths 15 Minute Boost 2

Define $\tanh(x)$ in terms of exponential functions.	
How do you calculate the volume of revolution for a function rotated about the $x-$axis ?	
What are the equations of the asymptotes for the hyperbola $\dfrac{x^2}{a^2} - \dfrac{y^2}{b^2} = 1$	
Find $(1 + i)^8$	
Calculate $\begin{pmatrix} 2 \\ 4 \\ 1 \end{pmatrix} \times \begin{pmatrix} 1 \\ 1 \\ 3 \end{pmatrix}$	

1 Find the vector equation of the line joining the points $(2,4,1)$ and $(5, - 2,4)$.

2 By finding the inverse of a matrix find the solution of the simultaneous equations given below.

$$\begin{cases} 3x + y + 4z & = 25 \\ -2x + 4y + 3z & = 20 \\ x + 5y - 2z & = 9 \end{cases}$$