Trace is the curve you get by holding one of \( x, y, z \) fixed and letting the other two vary. (Special name: if you fix the height, ie \( z \), the traces are also called level curves.)

\[
\begin{align*}
\text{eg:} & \quad 25 y^2 + z^2 = 100 + 4 x^2 \\
\text{-eg:} & \quad 25 y^2 + z^2 = 100 \\
\text{-eg:} & \quad \frac{x^2}{25} + \frac{y^2}{4} + \frac{z^2}{10^2} = 1 \\
\text{-eg:} & \quad \frac{x^2}{5^2} + \frac{y^2}{2^2} + \frac{z^2}{10^2} = 1
\end{align*}
\]