Question:

Find range of function cos(sinx)

Solution:

Range of y(x)=sin(x) is $\{y \in R: -1 \le y \le 1\}$. So, to find range of z(x)=cos(sinx), we should find a range of z(y)=cos(y) with domain $\{y \in R: -1 \le y \le 1\}$. And it is easily seen that the range of this function is $\{z \in R: cos(1) \le z \le 1\}$

Answer: $\{z \in R : cos(1) \le z \le 1\}$