5. Match the function expressed in words with an equation and a graph.

Average cost of producing x items. Equation IV Graph e

The oxygen content in a lake after dumping in fertilizer as a function of time. Equation v Graph b

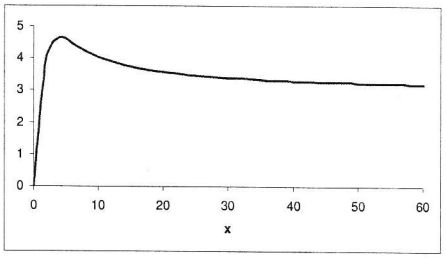
The amount of a drug (given by injection) in a body as a function of time. Equation i Graph d

The number of people purchasing a trendy new product as a function of time. Equation ii Graph a

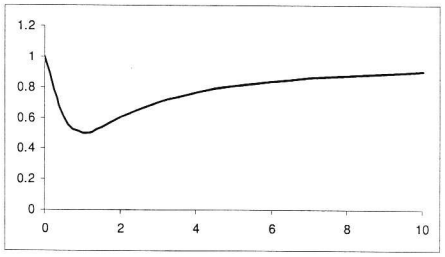
The number of people getting a particular disease during an epidemic as a function of time. Equation iii Graph c

(*i*) $y = \dfrac{25x+2}{5x^3+1}$ (*ii*) $y = \dfrac{25x+6x^2}{2x^2+10}$ (*iii*) $y = \dfrac{4x^2}{x^2+9}$ (*iv*) $y = \dfrac{20x+1000}{x}$ (*v*) $y = \dfrac{x^2-x+1}{x^2+1}$

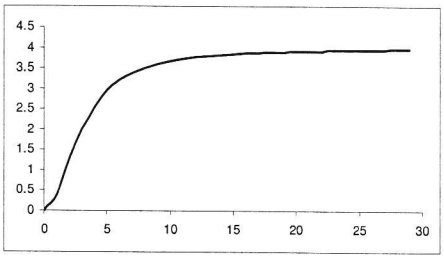
a.



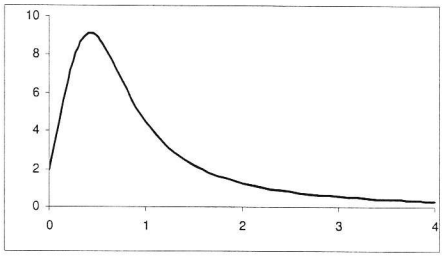
b.



c.



d.



e.