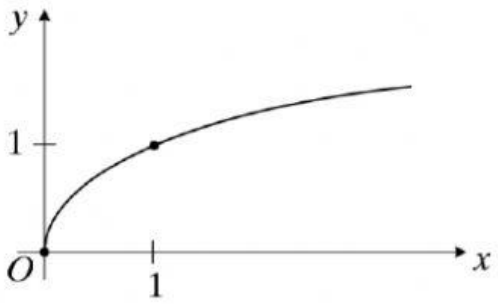
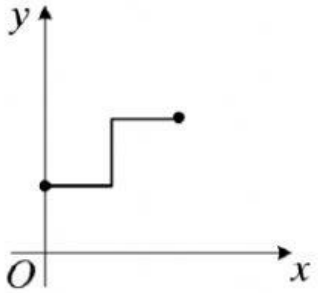
01. Kurios iš žemiau užrašytų funkcijų grafiko eskizas pavaizduotas paveiksle?



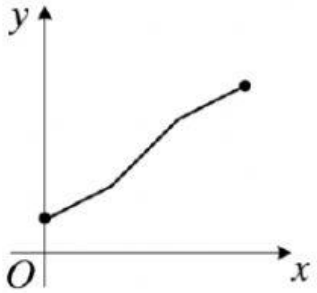
A $y = \sqrt{x}$ **B** $y = \log_4 x$ **C** $y = 2^x$ **D** $y = x^3$ **E** $y = \frac{1}{x}$

02. Kuriame paveiksle pavaizduota didėjančioji[1] funkcija?

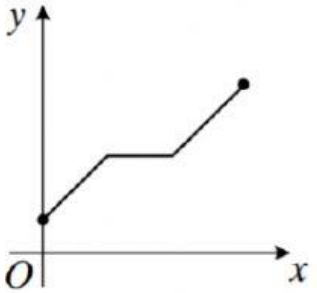
A



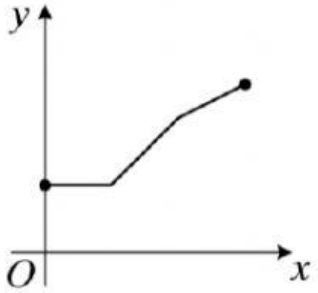
B



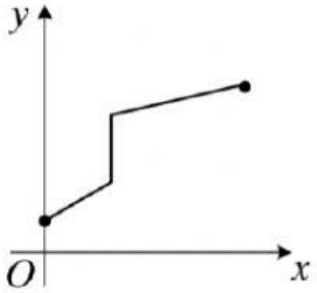
C



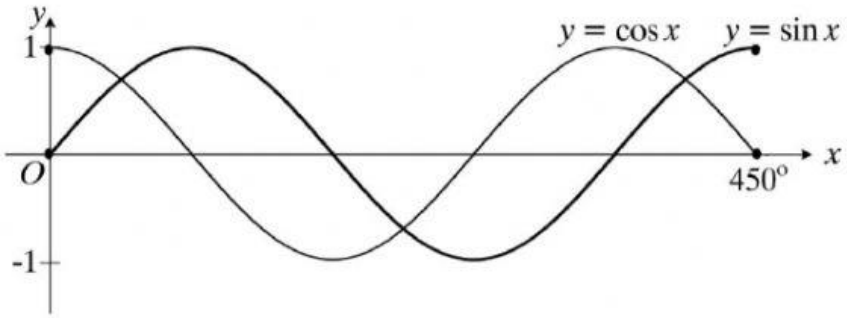
D



E



04. Raskite lygties[2] $\sin x = \cos x$ sprendinių[3] skaičių intervale $0^\circ \le x \le 450^\circ$, remdamiesi šiame intervale pavaizduotais funkcijų $y = \sin x$ ir $y = \cos x$ grafikais.



A 2 **B** 3 **C** 5 **D** 7 **E** 8

05. Kiek viršūnių yra piramidėje[4], turinčioje 12 briaunų[5]?

A 6 **B** 7 **C** 12 **D** 15 **E** 18

06. Seka[1] $a_1, a_2, ..., a_n, ...$ yra aritmetinė progresija[2], kurios $a_5 + a_n = a_2 + a_{10}$. Raskite n.

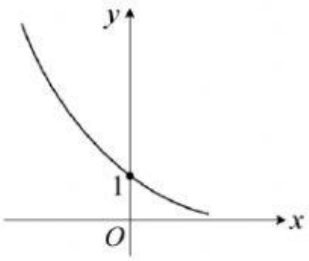
A 5 **B** 6 **C** 7 **D** 8 **E** 9

07. Visus iš eilės einančius natūraliuosius skaičius[3] keliant kvadratu buvo gauta seka $1^2, 2^2, 3^2, ..., n^2, ...$. Skaičius 10^8 yra šios sekos narys. Kuris skaičius šioje sekoje eis iš karto po skaičiaus 10^8?

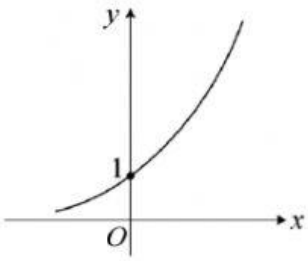
A $(10^8+1)^2$ **B** $(10^8)^2$ **C** $(10^5)^2$ **D** $(10^4+1)^2$ **E** $(10^4)^2+1$

09. Funkcijos $y = 2^{|x|}$ grafiko eskizas yra:

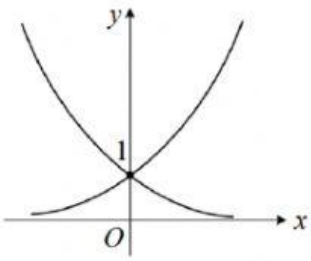
A



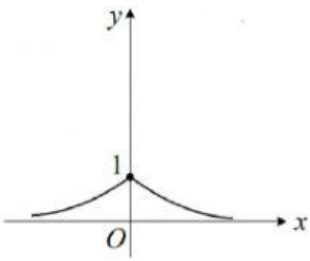
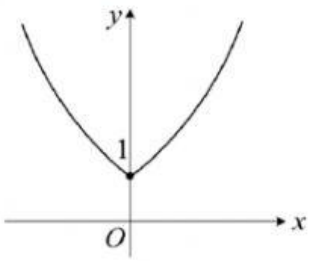
B



C



D



E