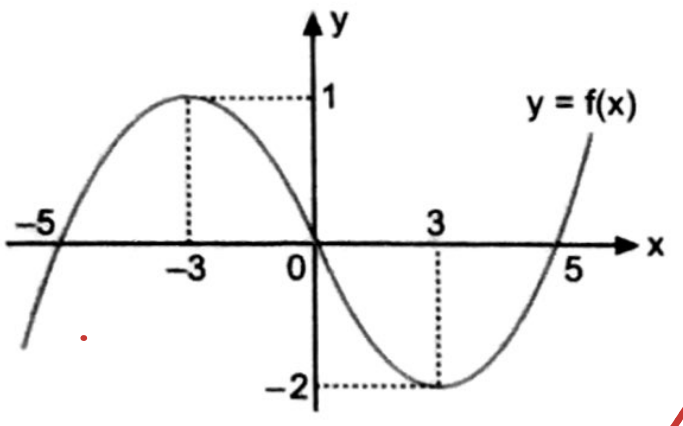
1.

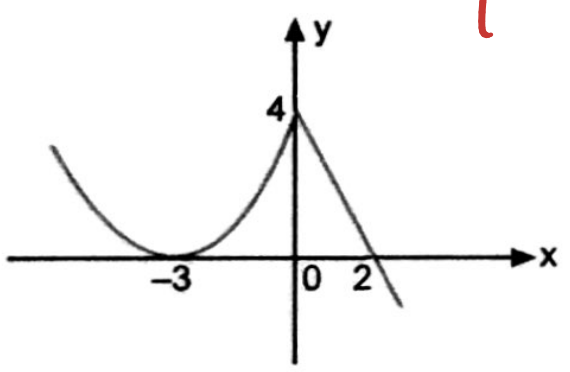


Şekilde f : R → R, y = f(x) fonksiyonunun grafiği verilmiştir.

Buna göre, f(x) = f(x – 1) – 4 denklemini sağlayan kaç farklı x gerçel sayısı vardır?

A) 4 B) 3 C) 2 D) 1 E) 0

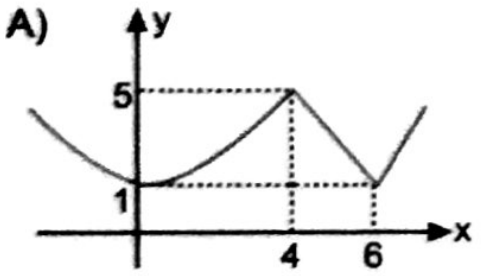
2.



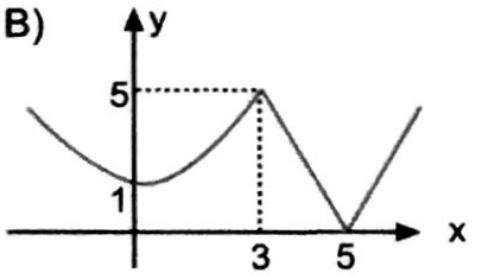
Yandaki şekilde f(x) fonksiyonunun grafiği verilmiştir.

Buna göre, y = |f(x – 3)| + 1 fonksiyonunun aynı aralıktaki grafiği aşağıdakilerden hangisidir?

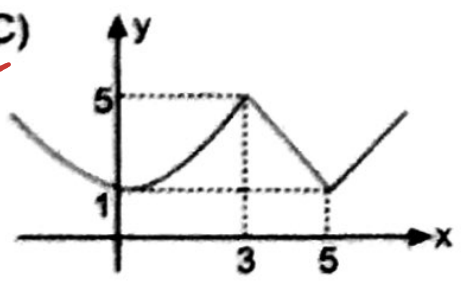
A)



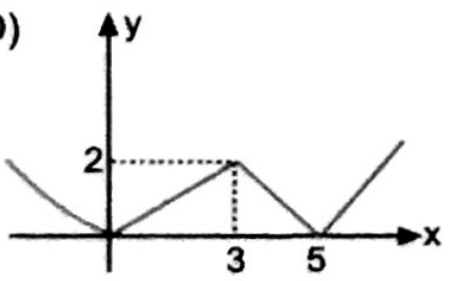
B)



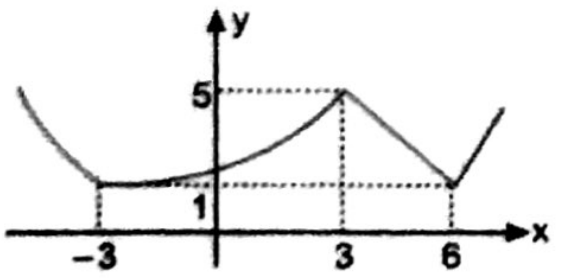
C)



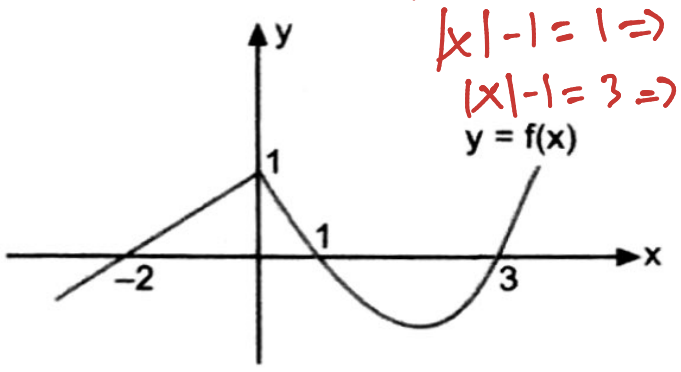
D)



E)



3.



Şekilde y = f(x) fonksiyonunun grafiği verilmiştir.

Buna göre, f(|x| – 1) = 0 denkleminin kaç farklı gerçel kökü vardır?

A) 5 B) 4 C) 3 D) 2 E) 1

4. x ve y birer tam sayıdır.

Buna göre, |x| + |y| = 8 eşitliğini sağlayan kaç farklı (x, y) ikilisi vardır?

A) 12 B) 16 C) 32 D) 36 E) 40

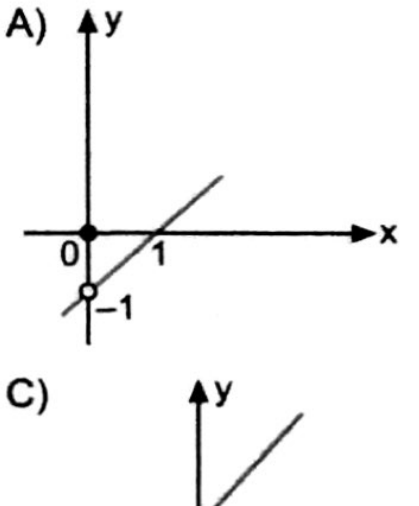
5.

$$f(x) = \begin{cases} -1, & x < 0 \\ x - 1, & x \geq 0 \end{cases}$$

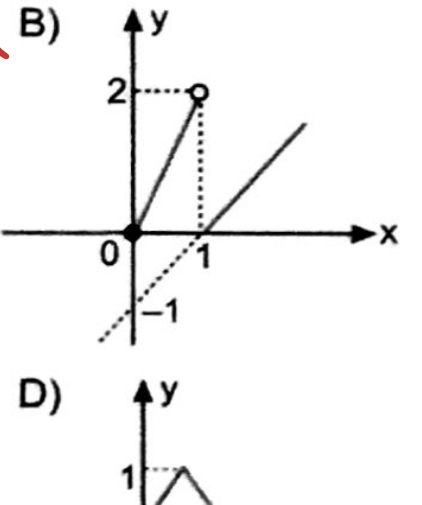
$$g(x) = \begin{cases} 1, & x < 0 \\ x + 1, & 0 \leq x < 1 \\ 0, & 1 \leq x \end{cases}$$

olduğuna göre, (f + g)(x) fonksiyonunun grafiği aşağıdakilerden hangisidir?

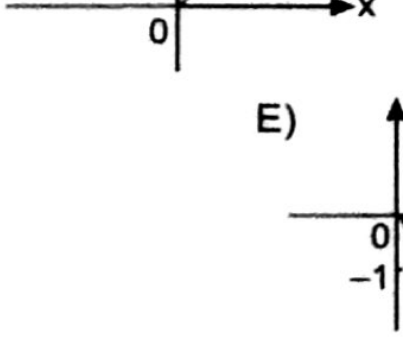
A)



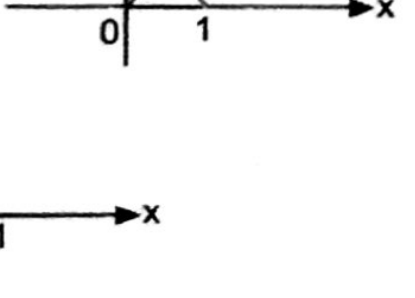
B)



C)



D)



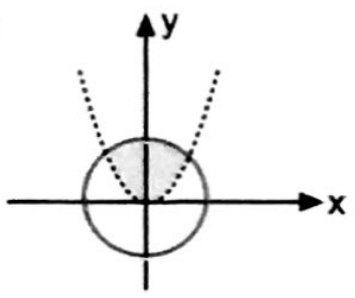
E)

6. $\beta_1 = \{(x, y) : x^2 + y^2 \le 1\}$

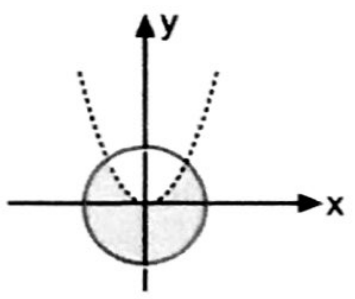
$\beta_2 = \{(x, y) : y - x^2 < 0\}$

olduğuna göre, $\beta_1 \cap \beta_2$ nin grafiği aşağıdakilerden hangisidir?

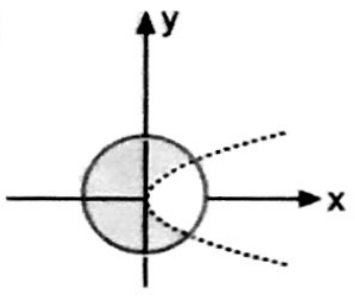
A)



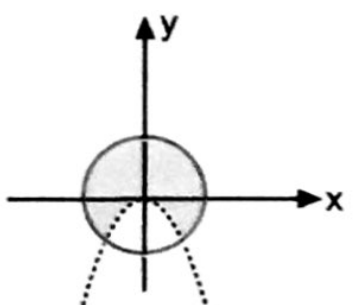
B)



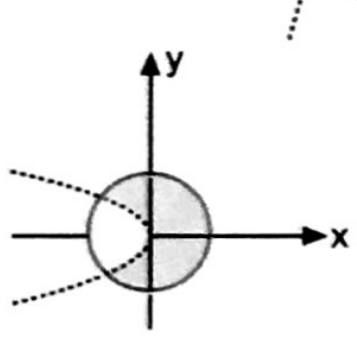
C)



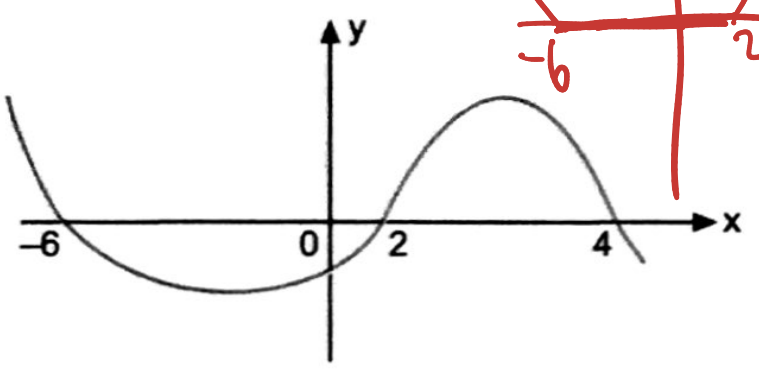
D)



E)



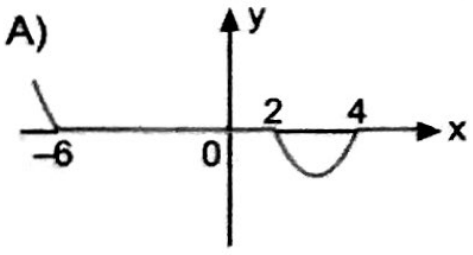
7.



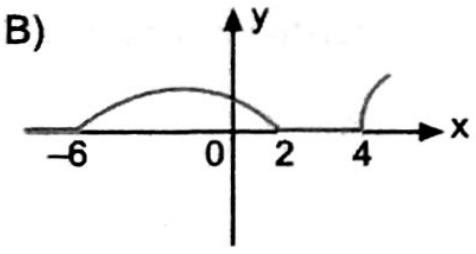
Yukarıda y = f(x) fonksiyonunun grafiği verilmiştir.

$h(x) = \dfrac{2f(x) + |2f(x)|}{4}$ fonksiyonunun grafiği aşağıdakilerden hangisidir?

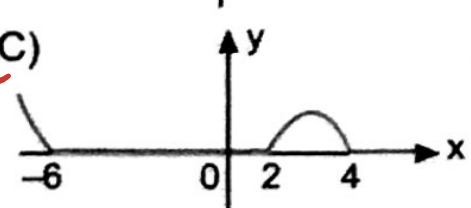
A)



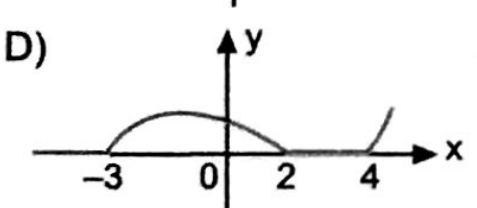
B)



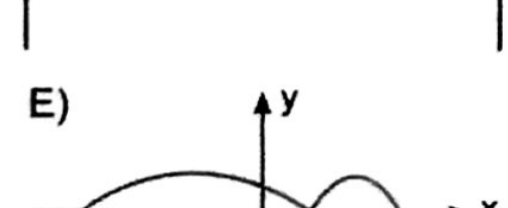
C)



D)



E)



8. f fonksiyonunun periyodu 5 ve f(3) = 16 dır. h fonksiyonunun periyodu 3 ve h(7) = 10 dur.

Buna göre, (h o f)(13) kaçtır?

A) 21 B) 16 C) 14 D) 12 E) 10

9. $f(x) = x^2 + mx + n$ fonksiyonunda $\forall x \in R$ için,

$|f(x)| - f(x) = 0$

olduğuna göre, aşağıdakilerden hangisi daima doğrudur?

A) $m = 4$ B) $m = 4n$ C) $n > 4$

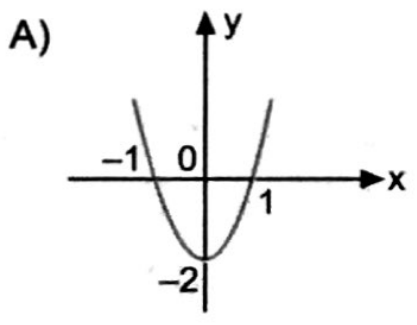
D) $m = n$ E) $m^2 \le 4n$

10. $f(x) = x \cdot |x|$

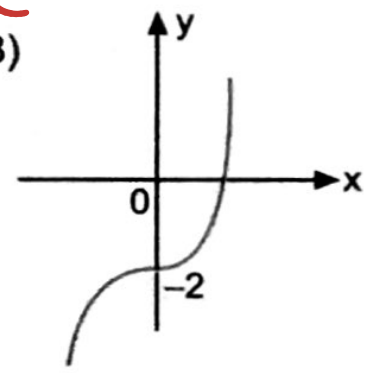
$g(x) = x - 2$

olduğuna göre, $y = (g \circ f)(x)$ fonksiyonunun grafiği aşağıdakilerden hangisidir?

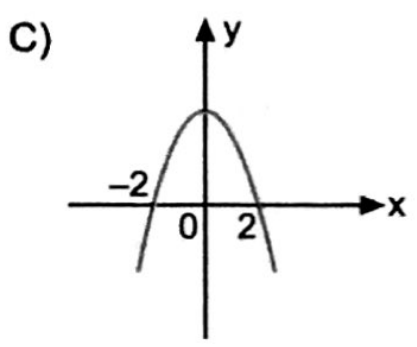
A)



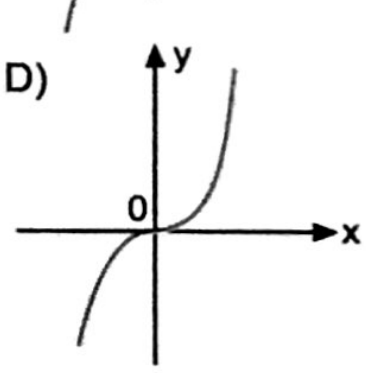
B)



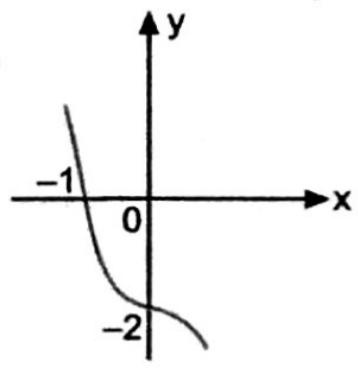
C)



D)



E)



1	E	2	C	3	B	4	C	5	B	6	B	7	C	8	E	9	E	10	B