

Soru 3

 $x^2(1-\ln x)y^2+xy^2-y=\frac{(1-\ln x)^2}{x}$ denkleminin homojen kısmına ait lineer bağımsız iki çözümü $y_1=\ln x$ ve $y_2=x$ olduğuna göre y_p özel çözümü aşağıdakılerden hangisi olabilir?

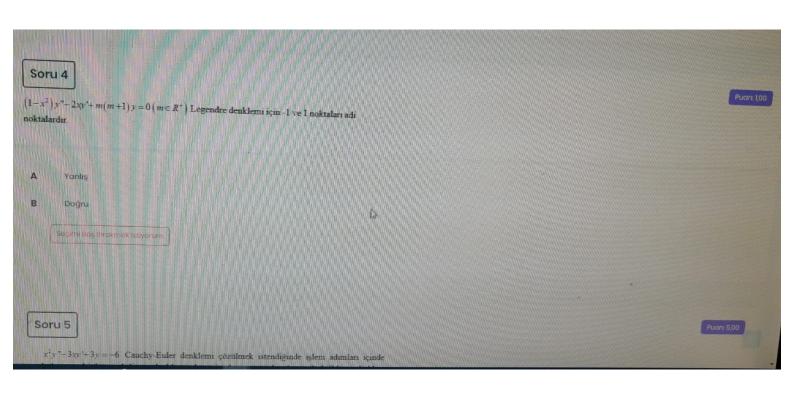
 $y_p = \frac{(1 - \ln x)^2}{x}$

 $B y_p = \frac{1 - \ln x}{4x}$

 $y_p = \frac{1 - 2\ln x}{4x}$

 $y_p = \frac{1 + \ln x^2}{4x}$

 $E \qquad \qquad y_p = \frac{1 + \ln x}{x}$



Soru 5

 x^2y "-3xy'+3y=-6 Cauchy-Euler denklemi çözülmek istendiğinde işlem adımları içinde bulunan sabit katsayılı lineer denklemin homojen kısmına ait karakteristik denklemin kökleri.

D

A {1,3}

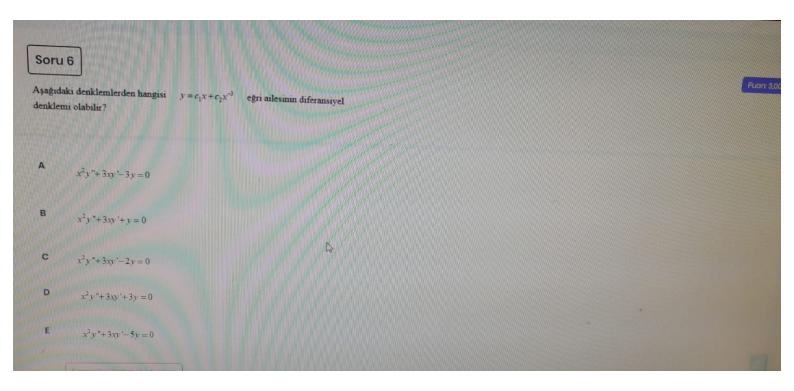
B {1,-2}

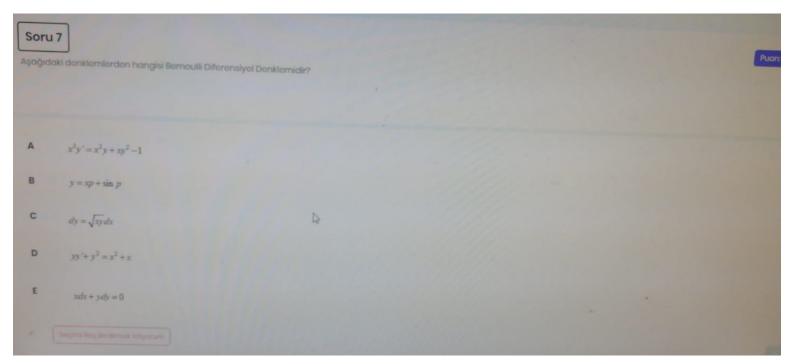
C {1,2}

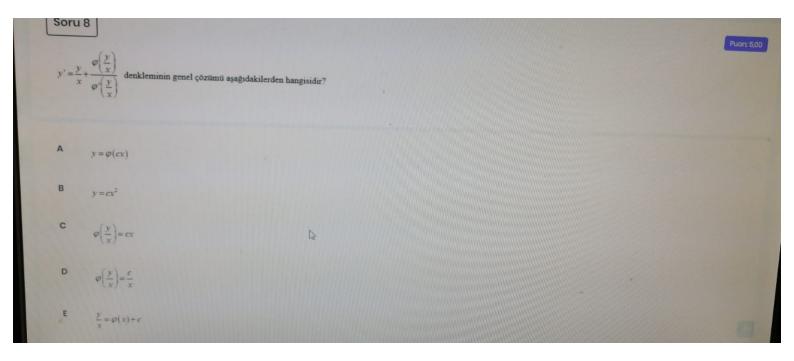
D {-1,-3}

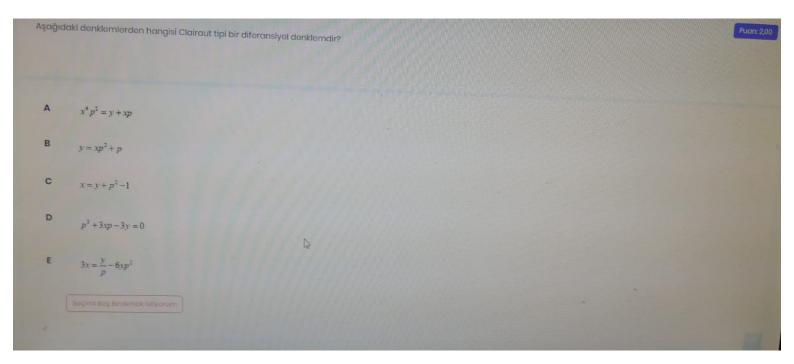
E {-1,3}

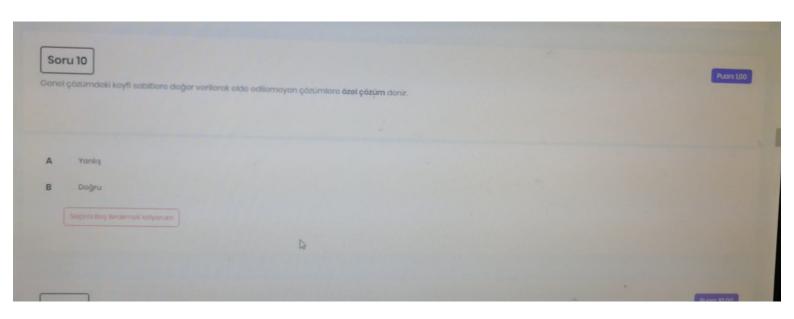
Seçimi Boş Bırakmak İstiyorum

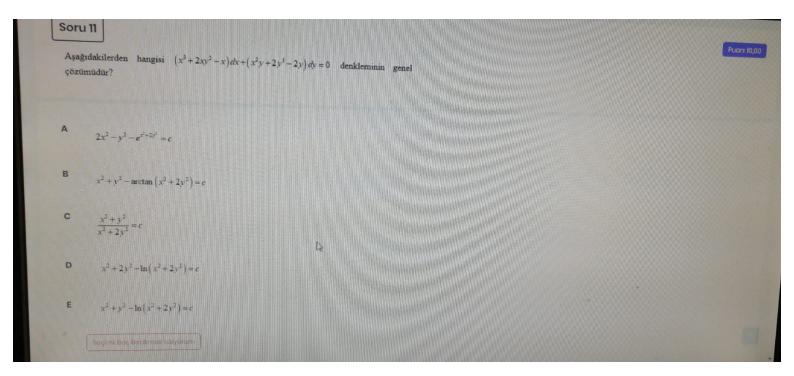


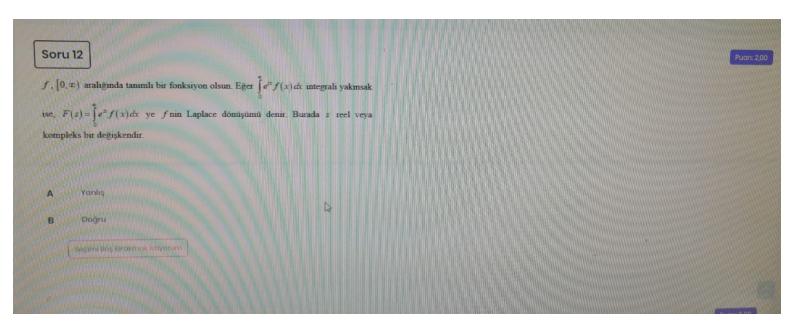












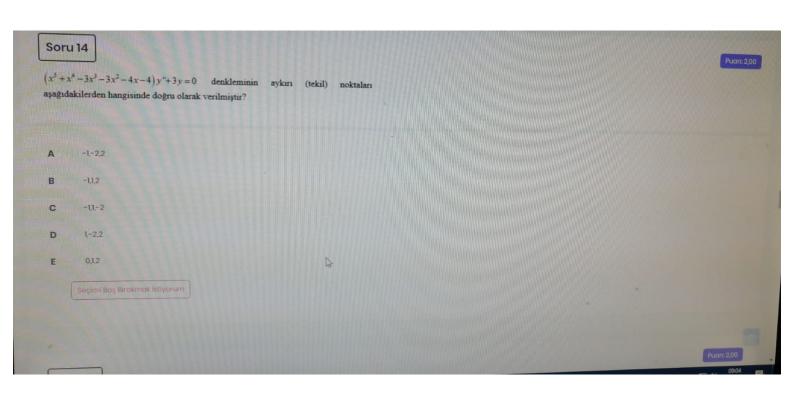
A
$$y = a_0 \left(1 - \frac{1}{4} x + \dots \right) + a_1 \left(x - \frac{1}{5} x^2 + \dots \right)$$

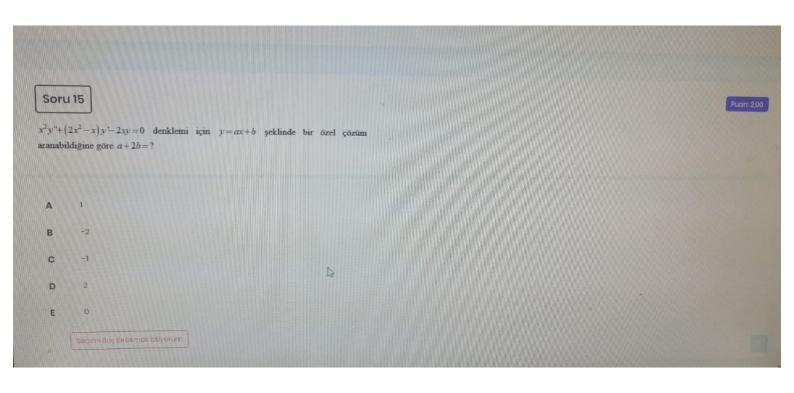
B
$$y = a_0 \left(1 - \frac{1}{3} x^3 + \dots \right) + a_1 \left(x - \frac{1}{4} x^4 + \dots \right)$$

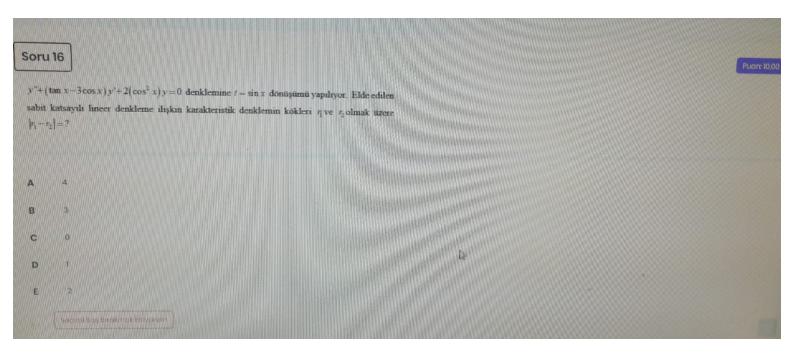
$$y = a_0 \left(1 - \frac{1}{12} x^4 + \dots \right) + a_1 \left(x - \frac{1}{20} x^5 + \dots \right)$$

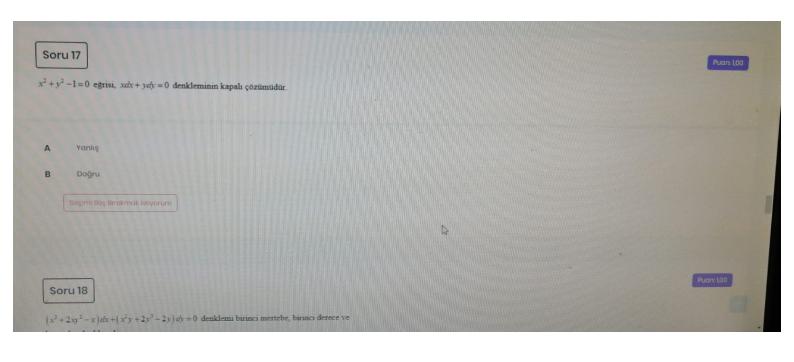
$$y = a_0 \left(1 - \frac{1}{4} x^4 + \dots \right) + a_1 \left(x - \frac{1}{5} x^5 + \dots \right)$$

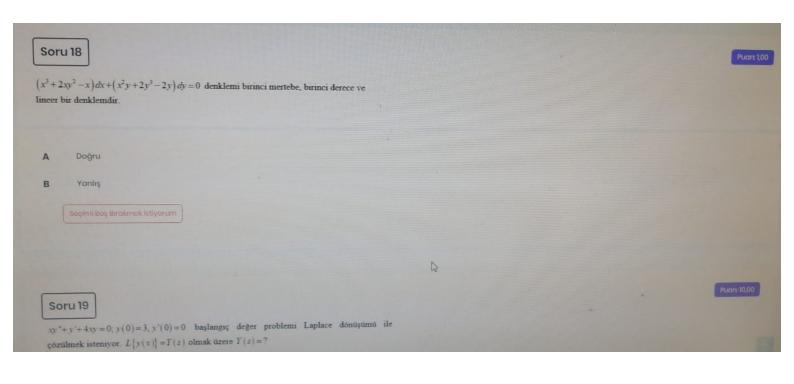
E
$$y = a_0 \left(1 - \frac{1}{12} x^2 + \dots \right) + a_1 \left(x - \frac{1}{20} x^3 + \dots \right)$$

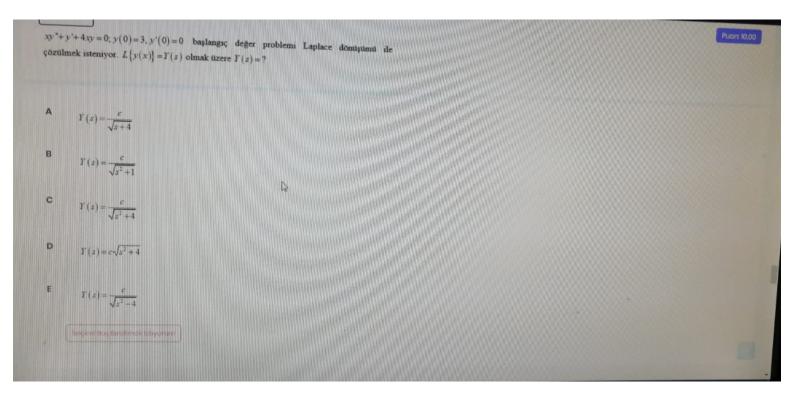


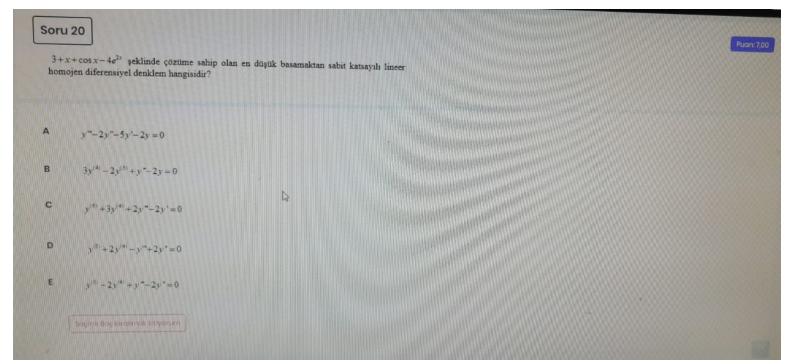


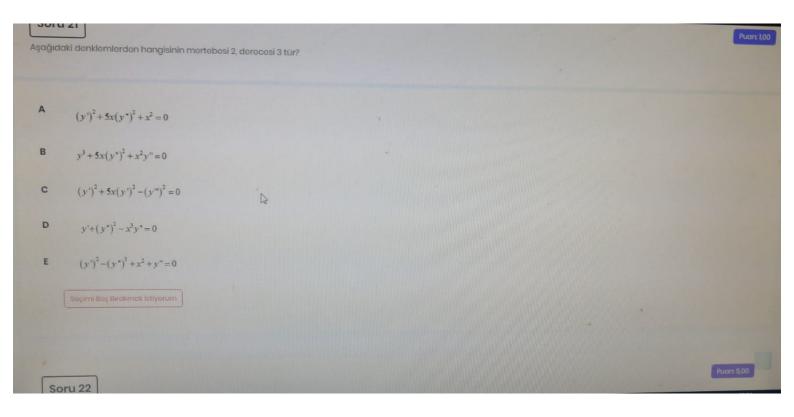












 $\frac{du}{dx} - u = -1$

13

 $\frac{du}{dx} - \frac{3}{2}u = 1$

 $\frac{du}{dx} + 3u = -2$

