Definite Integrals Assignment

QUESTION 1; Evaluate $\int_0^1 e^{2-3x}\,dx$ as limit of sum

QUESTION 2: $Evaluate \int_1^6 (|x-1|+|x-2|+|x-4|)dx$

QUESTION 3:

$$Evaluate \int_0^1 \frac{x^2+1}{x^2-5x+6}dx$$

QUESTION 4:

$$Evaluate: \int_{-1}^{1} x^{21}\cos^{18} x\,dx$$

QUESTION 5:

$$Evaluate \int_0^{\frac{\pi}{2}} \sin^3 x\,dx$$

QUESTION 6:

$$\text{Show that} \int_0^1 \tan^{-1}\left(\frac{2x-1}{1+x-x^2}\right)dx = 0$$

QUESTION 7:

Find The area between y = |sin x| and the x axis for -pi/2 < x < pi/4

QUESTION 8:

Find the value of $\int_0^1 xe^x\,dx$

QUESTION 9:

Evaluate $\int_0^2 |x^2+2x-3|dx$

QUESTION 10: $Evaluate \int_0^{\frac{\pi}{2}} \frac{\sin^2 x}{\sin x + \cos x} dx$