

Varianta reprezintă numărul studentului în registru grupei

Varianta nr. 1

$$t1 = \frac{-1}{(a-b)^2} \left(\frac{1}{a+x} + \frac{1}{1+x} \right) + \frac{2}{(a-b)^3} \ln \frac{a+x}{b+x} \quad t2 = -\frac{1}{2a} \left(\frac{\cos ax}{\sin^2 ax} - \ln \operatorname{tg} \frac{ax}{2} \right)$$

Varianta nr. 2

$$t1 = \frac{1}{a} \left(\frac{-1}{(n-2)x^{n-2}} + \frac{b}{(n-1)x^{n-1}} \right) \quad t2 = \frac{2x}{a^2} \sin ax - \left(\frac{x^2}{a} - \frac{2}{a^3} \right) \cos a$$

Varianta nr. 3

$$t1 = \frac{1}{a^3} \left(\ln x + \frac{2b}{x} - \frac{b^2}{2x^2} \right) \quad t2 = \frac{\cos ax}{2a \sin^2 ax} + \frac{1}{2a} \ln \operatorname{tg} \frac{ax}{2}$$

Varianta nr. 4

$$t1 = \frac{1}{a^4} \left(\frac{x^3}{3} - 3bx + 3b^2 \ln x + \frac{b^3}{x} \right) \quad t2 = \frac{1}{1-\sin ax} + \frac{1}{a} \operatorname{tg} \frac{ax}{2}$$

Varianta nr. 5

$$t1 = \frac{1}{b^2} \left(\ln \frac{y}{x} + \frac{ax}{y} \right) \quad t2 = \frac{x}{a} \operatorname{tg} \frac{ax}{2} + \frac{2}{a^2} \ln \sin \frac{ax}{2}$$

Varianta nr. 6

$$t1 = \frac{1}{b^3} \left(\ln \frac{y}{x} - \frac{a^2 x^2}{2y^2} \right) \quad t2 = \frac{1}{a} \operatorname{tg} \frac{ax}{2} + \frac{1}{a} \ln \operatorname{tg} \frac{ax}{2}$$

Varianta nr. 7

$$t1 = -a \left(\frac{1}{b^2 y} + \frac{1}{ab^2 x} - \frac{2}{b^3} \ln \frac{y}{x} \right) \quad t2 = \frac{1}{2a} \operatorname{ctg} \frac{ax}{2} + \frac{1}{6a} \operatorname{ctg}^3 \frac{ax}{2}$$

Varianta nr. 8

$$t1 = \frac{1}{6a^3} \ln \frac{a+x}{a-x} + \frac{1}{2a^3} \quad t2 = \frac{1}{ab} \ln \frac{\operatorname{tg} ax + b}{\operatorname{tg} ax - b}$$

Varianta nr. 9

$$t1 = \frac{1}{4a^3} \ln \frac{a^2 + x^2}{a^2 - x^2} \quad t2 = \frac{\cos^{n-1} ax}{a(m-1) \sin^{m-1} ax}$$

Varianta nr. 10

$$t1 = \frac{2\sqrt{x}}{3b^2} - \frac{2a^2\sqrt{x}}{b^4} + \frac{2a^3}{b^5} y \quad t2 = \frac{\sin^{n-1} ax + \cos^{m-1} ax}{a(n+m)}$$

Varianta nr. 11

$$t1 = \frac{2}{a^2 y \sqrt{x}} + \frac{3b^2 \sqrt{x}}{a^4 y} \quad t2 = \frac{1}{a} \left(\ln \operatorname{tg} \frac{ax}{2} - \frac{1}{\sin ax} \right)$$

Varianta nr. 12

$$t1 = -\frac{1}{2a\sqrt{2}} \ln \frac{x+a\sqrt{2x+a^2}}{x-a\sqrt{2x+a^2}}$$

$$t2 = \frac{1}{2a} \operatorname{tg}^2 ax + c$$

Varianta nr. 13

$$t1 = \frac{2(3ax-2b)\sqrt{x^3}}{15a^2}$$

$$t2 = \cos ax + \frac{\sin^3 ax}{\cos^2 ax}$$

Varianta nr. 14

$$t1 = \frac{1}{\sqrt{b}} \ln \frac{\sqrt{x} - \sqrt{b}}{\sqrt{x} + \sqrt{b}}$$

$$t2 = \frac{\sin^2 ax}{2} + \ln \cos ax$$

Varianta nr. 15

$$t1 = \frac{1}{b^3} \left(\ln \frac{y}{x} - \frac{a^2 x^2}{2y^2} \right)$$

$$t2 = \frac{1}{a} \operatorname{tg} \frac{ax}{2} + \frac{1}{a} \ln \operatorname{tg} \frac{ax}{2}$$

Varianta nr. 16

$$t1 = -a \left(\frac{1}{b^2 y} + \frac{1}{ab^2 x} - \frac{2}{b^3} \ln \frac{y}{x} \right)$$

$$t2 = \frac{1}{2a} \operatorname{ctg} \frac{ax}{2} + \frac{1}{6a} \operatorname{ctg}^3 \frac{ax}{2}$$

Varianta nr. 17

$$t1 = \frac{1}{b^3} \left(a^2 \ln \frac{y}{x} + \frac{2ax}{y} + \frac{y^2}{2x^2} \right)$$

$$t2 = \frac{1}{2\sqrt{2}a} + \frac{3\sin^2 ax - 1}{\sin^2 ax - 1}$$

Varianta nr. 18

$$t1 = \frac{1}{b^4} \left(3a^3 \ln \frac{y}{x} + \frac{a^2 x}{y} - \frac{3ay}{x} \right)$$

$$t2 = \frac{2b \operatorname{tg} \frac{ax}{2}}{a\sqrt{b^2 - c^2}}$$

Varianta nr. 19

$$t1 = \frac{1}{2(n-1)x^{n-1}} + \frac{a}{2nx^n}$$

$$t2 = \frac{1}{2a} \operatorname{tg}^2 ax + \frac{1}{a} \ln \cos ax$$

Varianta nr. 20

$$t1 = \frac{1}{4a^2 x^2} + \frac{1}{2a^4 x} + \frac{1}{2a^6} \ln \frac{y^2}{x}$$

$$t2 = \frac{x}{2} + \frac{1}{2a} \ln(\sin ax + \cos ax)$$

Varianta nr. 21

$$t1 = \frac{1}{a^2 c^2 + b^2} \left[c \ln(b+cx) - \frac{c}{2} \ln y \right]$$

$$t2 = \frac{1}{a} \ln \frac{1+\cos ax}{ax}$$

Varianta nr. 22

$$t1 = \frac{1}{3a^3 y} + \frac{1}{3a^6} \ln \frac{x^3}{y}$$

$$t2 = \frac{1}{a} \left[\frac{1}{(n-1)\cos^{n-1} ax} - \frac{1}{(n-1)\cos} \right]$$

Varianta nr. 23

$$t1 = \frac{1}{6a} \ln \frac{a^2 - ax + x^2}{(a+x)^2} + \frac{1}{a\sqrt{3}}$$

$$t2 = \frac{1}{ac} \ln(b+c \cos ax)$$

Varianta nr. 24

$$t1 = \frac{1}{6a^3} \ln \frac{a+x}{a-x} + \frac{1}{2a^3}$$

$$t2 = \frac{1}{ab} \ln \frac{\operatorname{tg} ax + b}{\operatorname{tg} ax - b}$$

Varianta nr. 25

$$t1 = \frac{1}{4a^3} \ln \frac{a^2 + x^2}{a^2 - x^2}$$

$$t2 = \frac{\cos^{n-1} ax}{a(m-1)\sin^{m-1} ax}$$

Varianta nr. 26

$$t1 = \frac{1}{b^3} \left(a^2 \ln \frac{y}{x} + \frac{2ax}{y} + \frac{y^2}{2x^2} \right)$$

Varianta nr. 27

$$t1 = \frac{1}{b^4} \left(3a^3 \ln \frac{y}{x} + \frac{a^2 x}{y} - \frac{3ay}{x} \right)$$

Varianta nr. 28

$$t1 = \frac{1}{2(n-1)x^{n-1}} + \frac{a}{2nx^n}$$

Varianta nr. 29

$$t1 = \frac{1}{4a^2 x^2} + \frac{1}{2a^4 x} + \frac{1}{2a^6} \ln \frac{y^2}{x}$$

Varianta nr. 30

$$t1 = \frac{1}{a^2 c^2 + b^2} \left[c \ln(b+cx) - \frac{c}{2} \ln y \right]$$

Varianta nr. 31

$$t1 = \frac{1}{3a^3 y} + \frac{1}{3a^6} \ln \frac{x^3}{y}$$

Varianta nr. 32

$$t1 = \frac{1}{6a} \ln \frac{a^2 - ax + x^2}{(a+x)^2} + \frac{1}{a\sqrt{3}}$$

Varianta nr. 33

$$t1 = \frac{1}{6a^3} \ln \frac{a+x}{a-x} + \frac{1}{2a^3}$$

Varianta nr. 34

$$t1 = \frac{1}{4a^3} \ln \frac{a^2 + x^2}{a^2 - x^2}$$

Varianta nr. 35

$$t1 = \frac{1}{c} \left(\frac{1}{ax+b} + \frac{y}{c} \ln \frac{yx+a}{ax+b} \right)$$

Varianta nr. 36

$$t1 = \frac{b}{(a-b)(b+x)} - \frac{a}{(a-b)^2} \ln \frac{a+x}{b+x}$$

Varianta nr. 37

$$t1 = \frac{-1}{(a-b)^2} \left(\frac{1}{a+x} + \frac{1}{1+x} \right) + \frac{2}{(a-b)^3} \ln \frac{a+x}{b+x}$$

$$t2 = \frac{1}{2\sqrt{2}a} + \frac{3\sin^2 ax - 1}{\sin^2 ax - 1}$$

$$t2 = \frac{2b \operatorname{tg} \frac{ax}{2}}{a\sqrt{b^2 - c^2}}$$

$$t2 = \frac{1}{2a} \operatorname{tg}^2 ax + \frac{1}{a} \ln \cos ax$$

$$t2 = \frac{x}{2} + \frac{1}{2a} \ln(\sin ax + \cos ax)$$

$$t2 = \frac{1}{a} \ln \frac{1 + \cos ax}{ax}$$

$$t2 = \frac{1}{a} \left[\frac{1}{(n-1)\cos^{n-1} ax} - \frac{1}{(n-1)\cos} \right]$$

$$t2 = \frac{1}{ac} \ln(b + c \cos ax)$$

$$t2 = \frac{1}{ab} \ln \frac{\operatorname{tg} ax + b}{\operatorname{tg} ax - b}$$

$$t2 = \frac{\cos^{n-1} ax}{a(m-1)\sin^{m-1} ax}$$

$$t2 = \frac{\sin ax}{2a \cos^2 x} + \frac{1}{2a} \ln \operatorname{tg} \frac{ax}{2}$$

$$t2 = \frac{1}{a} \left(\ln \operatorname{tg} \frac{ax}{2} - \frac{1}{\sin ax} \right)$$

$$t2 = -\frac{1}{2a} \left(\frac{\cos ax}{\sin^2 ax} - \ln \operatorname{tg} \frac{ax}{2} \right)$$

$$\overline{n^{-3}}\omega x$$

$$\overline{n^3} \omega x \, I$$