课后题

2022年2月2日 星期三 下午7:26

习题 10-1

1. (1) $\int_0^1 dx \int_0^{x^2} f(x,y)\,dy$

(2) $\int_0^1 dy \int_{y^2}^{y} f(x,y)\,dx$

(3) $\int_0^1 dx \int_{x^2}^{x} f(x,y)\,dy$

(4) $\int_0^1 dy \int_{y}^{\sqrt{y}} f(x,y)\,dx$

(5) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy$

(6) $\int_0^{\frac{\sqrt{2}}{2}} dy \int_{y}^{\sqrt{1-y^2}} f(x,y)\,dx + \int_{\frac{\sqrt{2}}{2}}^{1} dy \int_{y}^{y} f(x,y)\,dx$

(7) $\int_0^{\frac{\pi}{4}} dx \int_{\tan x}^{1} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{0}^{1} f(x,y)\,dy$

(8) $\int_0^{\frac{\pi}{4}} dx \int_{\tan x}^{1} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{0}^{\cot x} f(x,y)\,dy$

(9) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(10) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(11) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(12) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(13) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

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(123) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(124) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(125) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(126) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(127) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(128) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(129) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(130) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(131) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(132) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(133) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(134) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(135) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(136) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(137) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(138) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(139) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(140) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(141) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(142) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(143) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(144) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(145) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(146) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(147) $\int_0^{\frac{\pi}{4}} dx \int_{\sin x}^{\cos x} f(x,y)\,dy + \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} dx \int_{\cos x}^{\sin x} f(x,y)\,dy$

(148) $