

$$1. \iint_D (1+x) dx dy, D = \{(x,y) \in \mathbb{R}^2 \mid x^2 + y^2 \leq 2y, y \leq -x+2\}$$

$$2. \iint_D (x+xy) dx dy, D \text{ este trapezul determinat de } A(1,0), B(5,0), C(3,4), D(1,4).$$

$$3. \iint_D (x^2 + y^2 + xy) dx dy, D = \{(x,y) \in \mathbb{R}^2 \mid 4 \leq x^2 + y^2 \leq 9; 0 \leq x \leq y\}$$

$$4. \iint_D (x+y)xy dx dy, D \text{ este limitat de dreptele}$$

$$x+y = -3, x+y = 3$$

$$x-y = 1; x-y = -1.$$

$$5. \text{aria}(D) = ?; D = \{(x,y) \in \mathbb{R}^2 \mid x^2 + y^2 \leq 4, y \leq x\}$$

$$6. \text{aria}(D) = ? \quad D = \{(x,y) \in \mathbb{R}^2 \mid 3 \leq 2x+2y \leq 4, y^2 \leq 2x\}$$

$$7. \text{aria}(D) = ?, D \text{ este mărginit de curbă}$$

$$(x^2 + y^2)^2 = a^2(x^2 - y^2), a > 0$$

$$8. \iint_D (x+y)^2 dx dy, D = \{(x,y) \in \mathbb{R}^2 \mid x^2 + y^2 \leq 4x\}$$

$$9. \iint_D \ln(x^2 + y^2) dx dy; D = \{(x,y) \in \mathbb{R}^2 \mid 1 \leq x^2 + y^2 \leq 4, y \leq \sqrt{3}x\}$$

$$10. \iint_D \sqrt{xy} dx dy, D \text{ este mărginit de curbele}$$

$$y^2 = x; y^2 = 8x; xy = 1, xy = 8.$$

$$11. \iint_D e^{-x^2-y^2} dx dy, D = \{(x,y) \in \mathbb{R}^2 \mid x^2+y^2 \leq 9, x, y \leq 0\}$$

$$12. \iint_D \sqrt{x^2+y^2} \cdot e^{\sqrt{x^2+y^2}} dx dy, D = \{(x,y) \mid x^2+y^2 \leq 4, y \geq \frac{1}{\sqrt{3}}x\}$$

$$14. \iiint_V x dx dy dz, V = \{(x,y,z) \in \mathbb{R}^3 \mid 2x+3y+6z \leq 6, x, y, z \geq 0\}$$

$$15. \iiint_V (x^2+y^2) dx dy dz, V = \{(x,y,z) \in \mathbb{R}^3 \mid x^2+y^2 \leq z^2, 1 \leq z \leq 2, x, y \geq 0\}$$

$$16. \iiint_V \sqrt{x^2+y^2} dx dy dz, V = \{(x,y,z) \in \mathbb{R}^3 \mid 4 \leq x^2+y^2 \leq z^2, 0 \leq z \leq 3\}$$

$$17. \iiint_V x dx dy dz; V = \{(x,y,z) \in \mathbb{R}^3 \mid 1 \leq z \leq 2, x+y+z \leq 4, x, y \geq 0\}$$

$$19. \iiint_V (x+y+z)^2 dx dy dz; V \text{ limitat de } x^2+y^2+z^2 = 3 \text{ \& } \text{paraboloidul } x^2+y^2 = 2z.$$

$$19. \iiint_V \sqrt{x^2+y^2+z^2} dx dy dz, V = \{(x,y,z) \in \mathbb{R}^3 \mid x^2+y^2+z^2 \leq z\}$$

$$20. \iiint_V (x^2+y^2) dx dy dz, V \text{ este mărginit de suprafețele } x^2+y^2+z^2 = 2z \text{ \& } x^2+y^2+z^2 = 1.$$