

Zapisz obszar jako obszar normalny:

1. trójkąt o wierzchołkach: $(1, 0), (0, 3), (1, 3)$
2. trójkąt o wierzchołkach: $(0, 0), (1, 2), (0, 2)$
3. trójkąt o wierzchołkach: $(1, 2), (1, -2), (0, 0)$
4. trójkąt o wierzchołkach: $(2, 1), (-2, 1), (0, 0)$
5. trójkąt o wierzchołkach: $(0, 0), (-1, -3), (1, -3)$
6. trójkąt o wierzchołkach: $(0, 0), (-2, -1), (-2, 1)$
7. trójkąt o wierzchołkach: $(1, 2), (2, 4), (2, 2)$
8. trójkąt o wierzchołkach: $(1, 4), (2, 4), (1, 2)$
9. trójkąt o wierzchołkach: $(1, 1), (3, 3), (1, 3)$
10. trójkąt o wierzchołkach: $(3, 1), (3, 3), (1, 1)$

$$11. G : \begin{cases} 1 \leq x^2 + y^2 \leq 9 \\ x \leq 0 \end{cases}$$

$$12. G : \begin{cases} 4 \leq x^2 + y^2 \leq 16 \\ y \geq 0 \end{cases}$$

$$13. G : \begin{cases} 1 \leq x^2 + y^2 \leq 3 \\ x \leq 0, y \geq 0 \end{cases}$$

$$14. G : \begin{cases} 5 \leq x^2 + y^2 \leq 9 \\ x \geq 0, y \leq 0 \end{cases}$$

$$15. G : \begin{cases} 1 \leq x^2 + y^2 \leq 4 \\ x \leq 0, y \geq x \end{cases}$$

$$16. G : \begin{cases} 4 \leq x^2 + y^2 \leq 6 \\ y \geq 0, y \geq -x \end{cases}$$

$$17. V : 1 \leq x^2 + y^2 + z^2 \leq 16, x \geq 0, y \geq 0, z \geq 0$$

$$18. V : \begin{cases} z \leq 5 - x^2 - y^2 \\ z \geq 1 \end{cases}$$

$$19. V : \begin{cases} z \geq x^2 + y^2 \\ z \leq 4 \end{cases}$$

$$20. V : \begin{cases} z \geq \sqrt{x^2 + y^2} \\ z \leq 9 \\ x^2 + y^2 \leq 4 \end{cases}$$

$$21. V : \begin{cases} 9 - x^2 - y^2 \geq z \\ z \geq 0 \end{cases}$$

$$22. V : \begin{cases} z \leq 6 - x^2 - y^2 \\ z \geq \sqrt{x^2 + y^2} \end{cases}$$

$$23. V : \begin{cases} z \leq 12 - x^2 - y^2 \\ z \geq \sqrt{x^2 + y^2} \end{cases}$$

$$24. V : \begin{cases} z \leq 8 - x^2 - y^2 \\ z \geq x^2 + y^2 \end{cases}$$

$$25. V : \begin{cases} x^2 + y^2 + z^2 \leq 12 \\ z \geq x^2 + y^2 \end{cases}$$

$$26. V : \begin{cases} x^2 + y^2 + z^2 \leq 6 \\ z \geq x^2 + y^2 \end{cases}$$

27. V czworościan $ABCD$ o wierzchołkach $A(0, 0, 0), B(1, 0, 0), C(0, 1, 0), D(0, 0, 3)$

28. V czworościan $ABCD$ o wierzchołkach $A(0, 0, 0), B(5, 0, 0), C(0, 2, 0), D(0, 0, 4)$

ODPOWIEDZI:

$$1. 0 \leq x \leq 1; 3 - 3x \leq y \leq 3$$

$$2. 0 \leq x \leq 1; 2x \leq y \leq 2$$

$$3. 0 \leq x \leq 1; -2x \leq y \leq 2x$$

$$4. 0 \leq y \leq 1; -2y \leq x \leq 2y$$

$$5. -3 \leq y \leq 0; \frac{1}{3}y \leq x \leq -\frac{1}{3}y$$

$$6. -2 \leq x \leq 0; \frac{1}{2}x \leq y \leq -\frac{1}{2}x$$

$$7. 1 \leq x \leq 2; 2 \leq y \leq 2x$$

$$8. 1 \leq x \leq 2; 6 - 2x \leq y \leq 4$$

$$9. 1 \leq x \leq 3; x \leq y \leq 3$$

$$10. 1 \leq x \leq 3; 1 \leq y \leq x$$

$$11. 1 \leq r \leq 3; \frac{\Pi}{2} \leq \varphi \leq \frac{3\Pi}{2}$$

$$12. 2 \leq r \leq 4; 0 \leq \varphi \leq \Pi$$

$$13. 1 \leq r \leq \sqrt{3}; \frac{\Pi}{2} \leq \varphi \leq \Pi$$

$$14. \sqrt{5} \leq r \leq 3; \frac{3\Pi}{2} \leq \varphi \leq 2\Pi$$

$$15. 1 \leq r \leq 2; \frac{\Pi}{2} \leq \varphi \leq \frac{5\Pi}{4}$$

$$16. 2 \leq r \leq \sqrt{6}; 0 \leq \varphi \leq \frac{3\Pi}{4}$$

$$17. 1 \leq r \leq 4; 0 \leq \varphi \leq \frac{\Pi}{2}; 0 \leq \Theta \leq \frac{\Pi}{2}$$

$$18. 0 \leq r \leq 2; 0 \leq \varphi \leq 2\Pi; 1 \leq z \leq 5 - r^2$$

$$19. 0 \leq r \leq \sqrt{8}; 0 \leq \varphi \leq 2\Pi; r^2 \leq z \leq 8$$

$$20. 0 \leq r \leq 2; 0 \leq \varphi \leq 2\Pi; r \leq z \leq 9$$

$$21. 0 \leq r \leq 3; 0 \leq \varphi \leq 2\Pi; 0 \leq z \leq 9 - r^2$$

$$22. 0 \leq r \leq 2; 0 \leq \varphi \leq 2\Pi; r \leq z \leq 6 - r^2$$

$$23. 0 \leq r \leq 3; 0 \leq \varphi \leq 2\Pi; r \leq z \leq 12 - r^2$$

$$24. 0 \leq r \leq 2; 0 \leq \varphi \leq 2\Pi; r^2 \leq z \leq 8 - r^2$$

$$25. 0 \leq r \leq 3; 0 \leq \varphi \leq 2\Pi; r^2 \leq z \leq \sqrt{12 - r^2}$$

$$26. 0 \leq r \leq \sqrt{3}; 0 \leq \varphi \leq 2\Pi; r \leq z \leq \sqrt{6 - r^2}$$

$$27. 0 \leq x \leq 1; 0 \leq y \leq 1 - x; 0 \leq z \leq 3 - 3x - 3y$$

$$28. 0 \leq x \leq 5; 0 \leq y \leq 2 - \frac{2}{5}x; 0 \leq z \leq 4 - \frac{4}{5}x - 2y$$