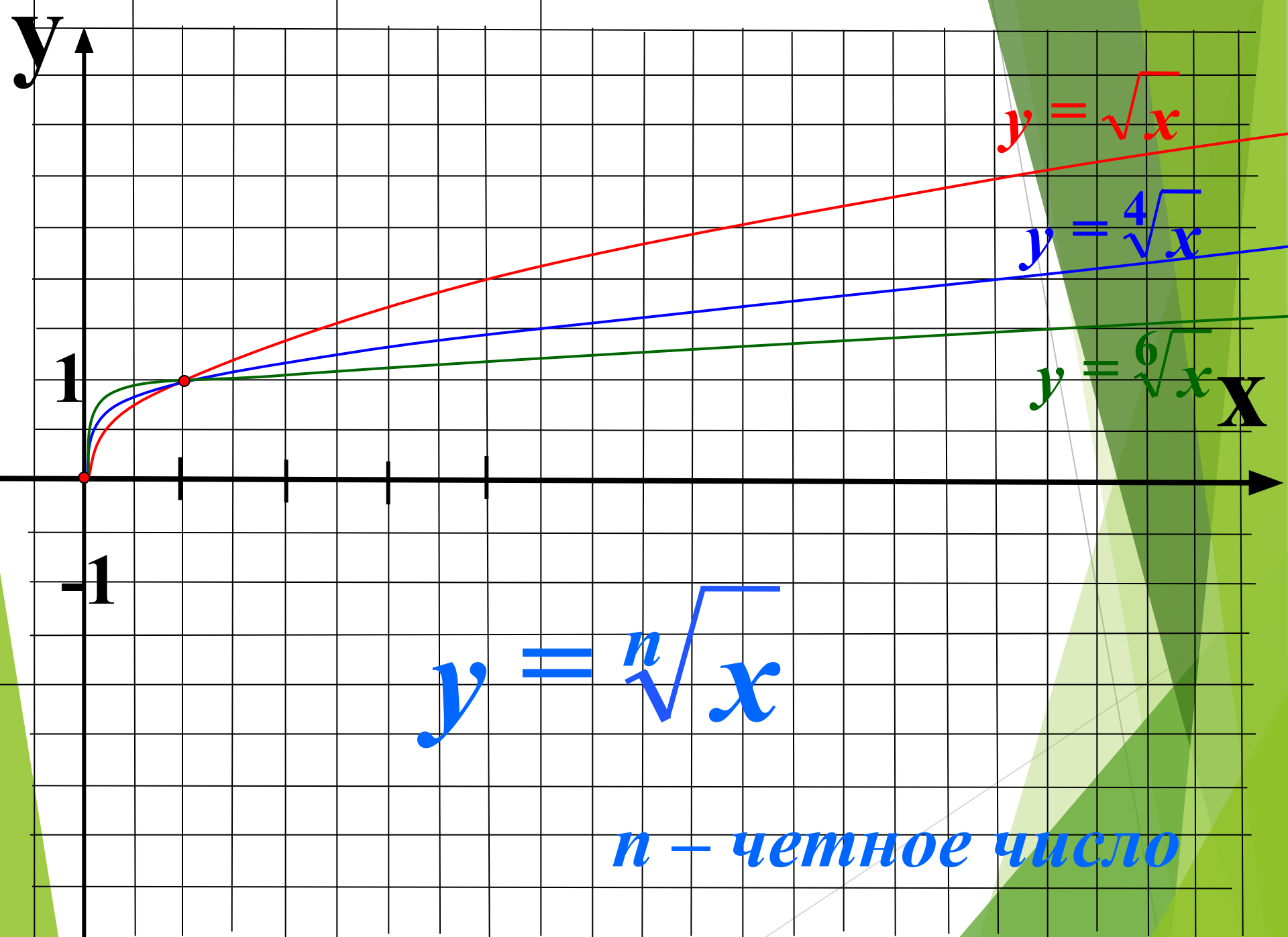


Функции

$$y = \sqrt[n]{x}$$

их свойства и график



$$y = \sqrt{x}$$

$$y = \sqrt[4]{x}$$

$$y = \sqrt[6]{x}$$

$$y = \sqrt[n]{x}$$

n – четное число

$$y = \sqrt[n]{x}$$

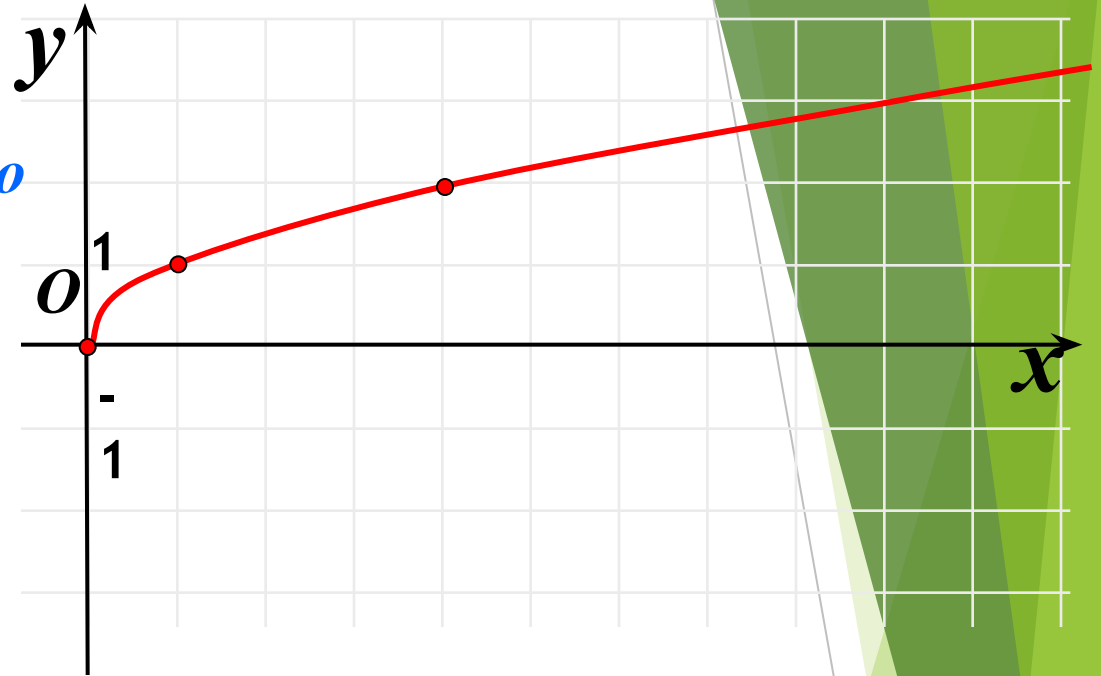
n – четное число

$$D(y) : x \geq 0$$

$$E(y) : y \geq 0$$

$$y = 0 \quad x = 0$$

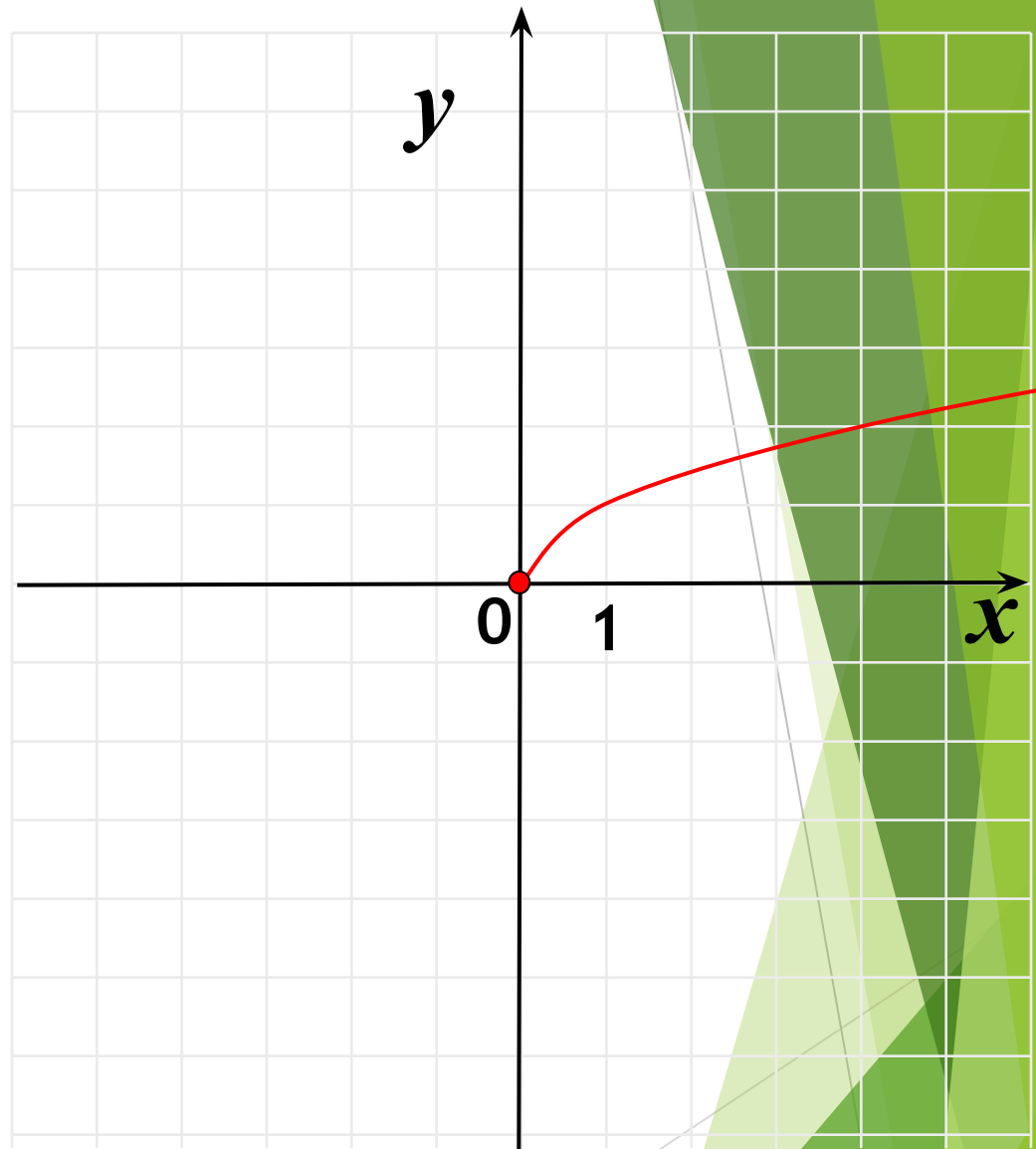
$$y > 0 \quad x > 0$$



Функция возрастает $x \in [0; +\infty)$

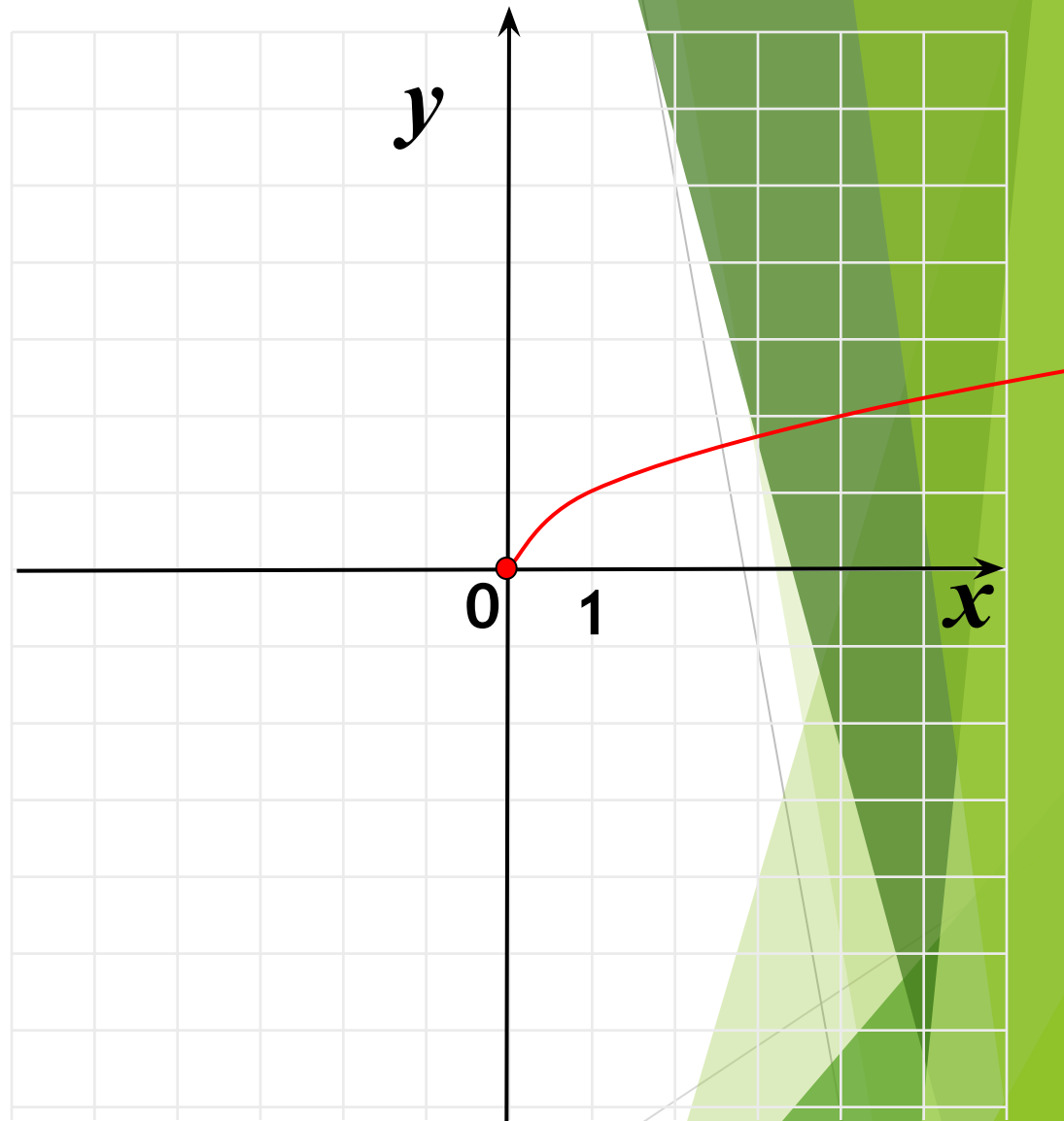
$$y = \sqrt{x+4} - 2$$

← ↓

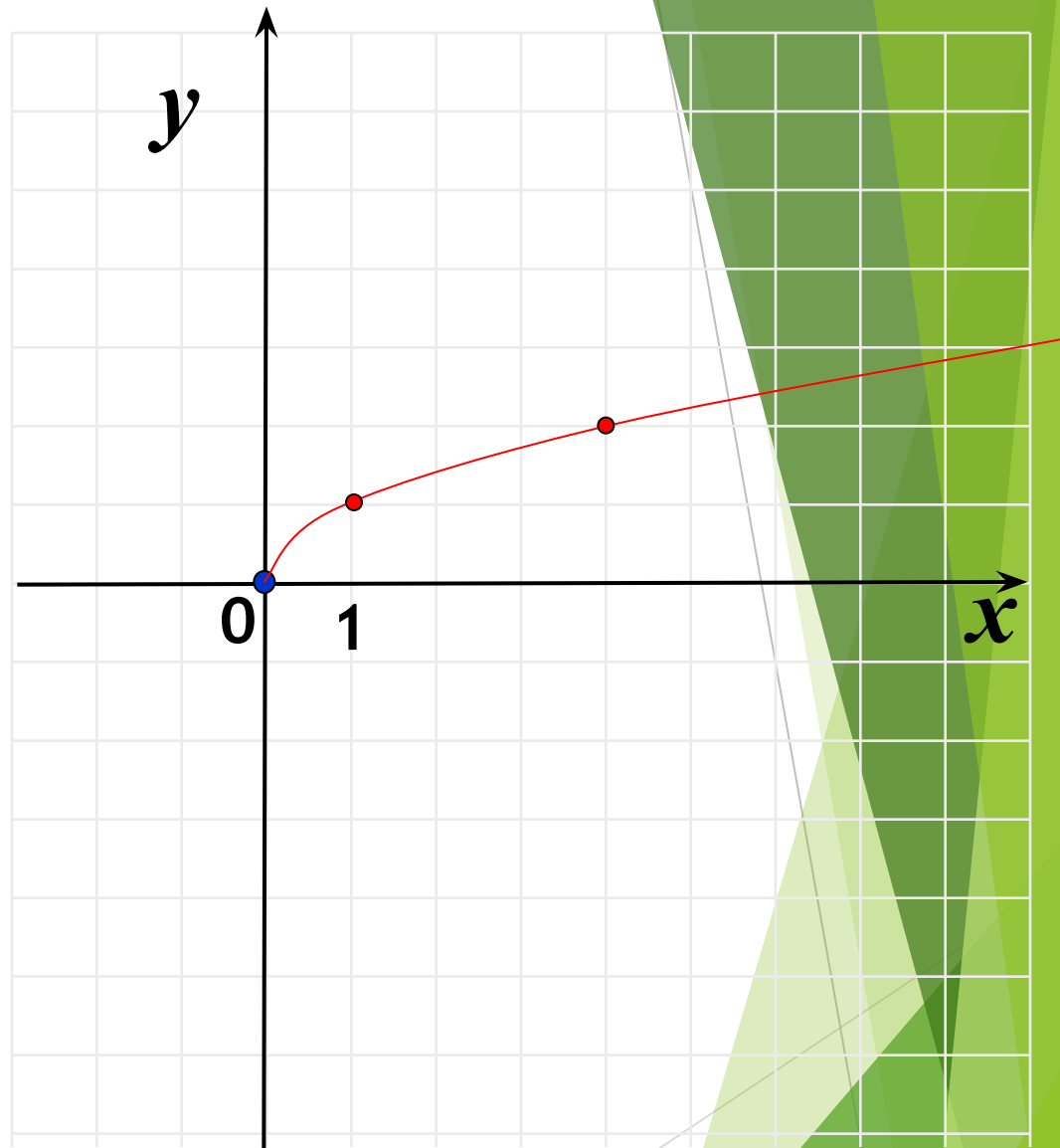


$$y = \sqrt{x-1} - 2$$

→ ↓

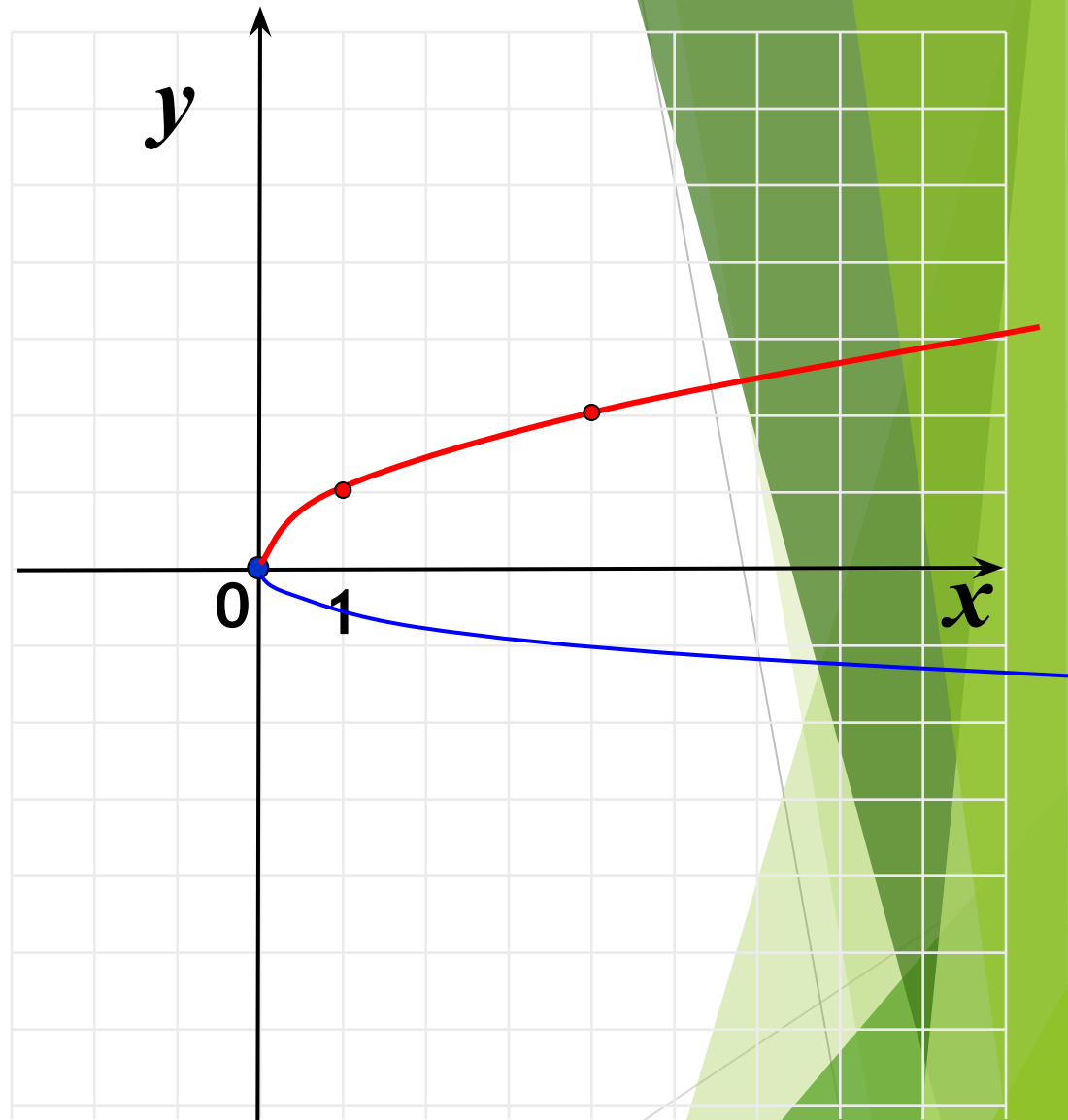


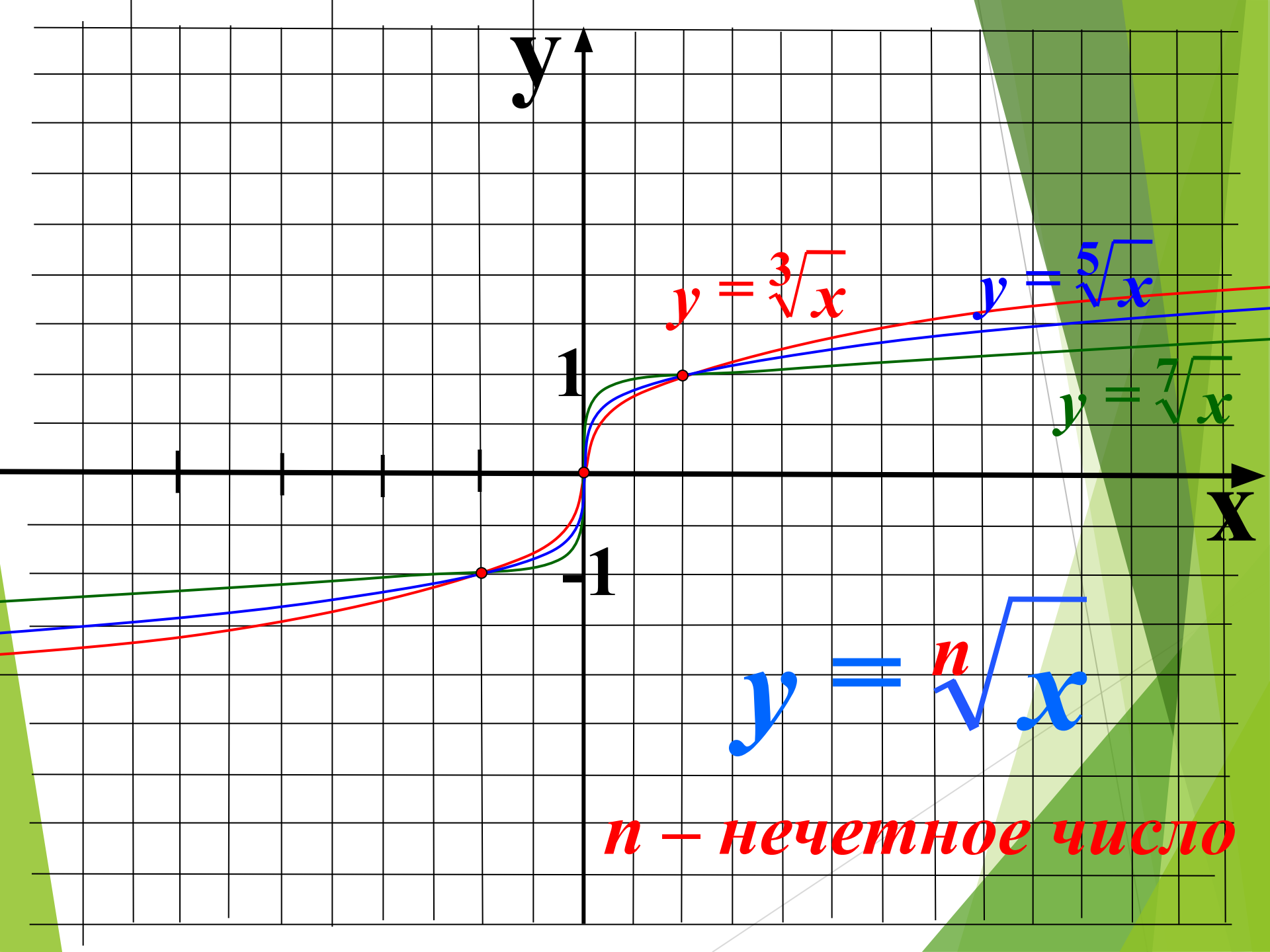
$$y = 2\sqrt{x}$$



$$y = \frac{1}{2} \sqrt{x}$$

$$y = -\frac{1}{2} \sqrt{x}$$





y

$$y = \sqrt[3]{x}$$

$$y = \sqrt[5]{x}$$

$$y = \sqrt[7]{x}$$

1

-1

x

$$y = \sqrt[n]{x}$$

n – нечетное число

$$y = \sqrt[n]{x}$$

n – нечетное число

y

$$y = \sqrt[3]{x}$$

O

1

-1

x

$$D(y): x \in \mathbb{R} \quad E(y): y \in \mathbb{R}$$

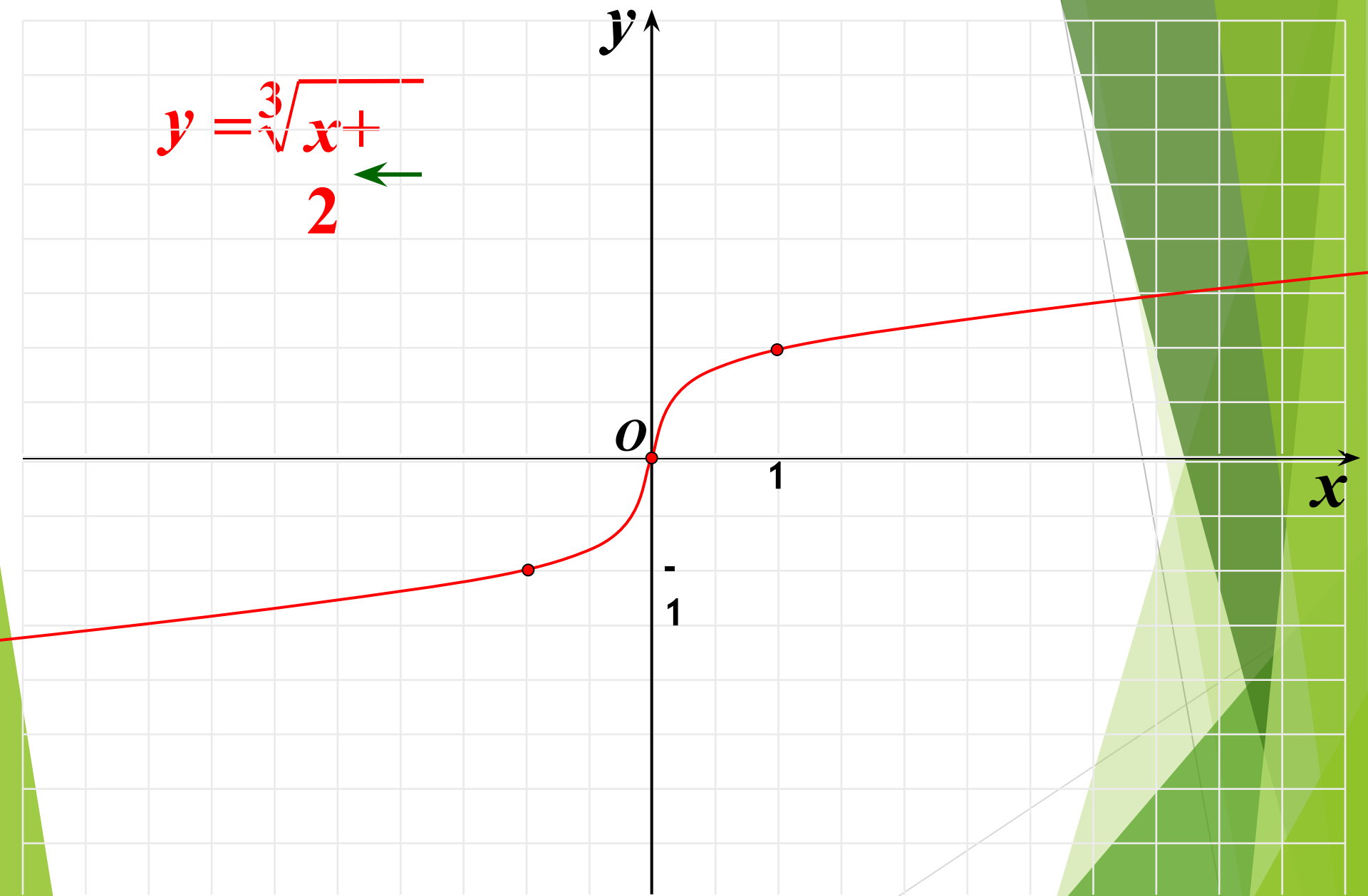
$$y = 0 \quad x = 0$$

$$y > 0 \quad x > 0$$

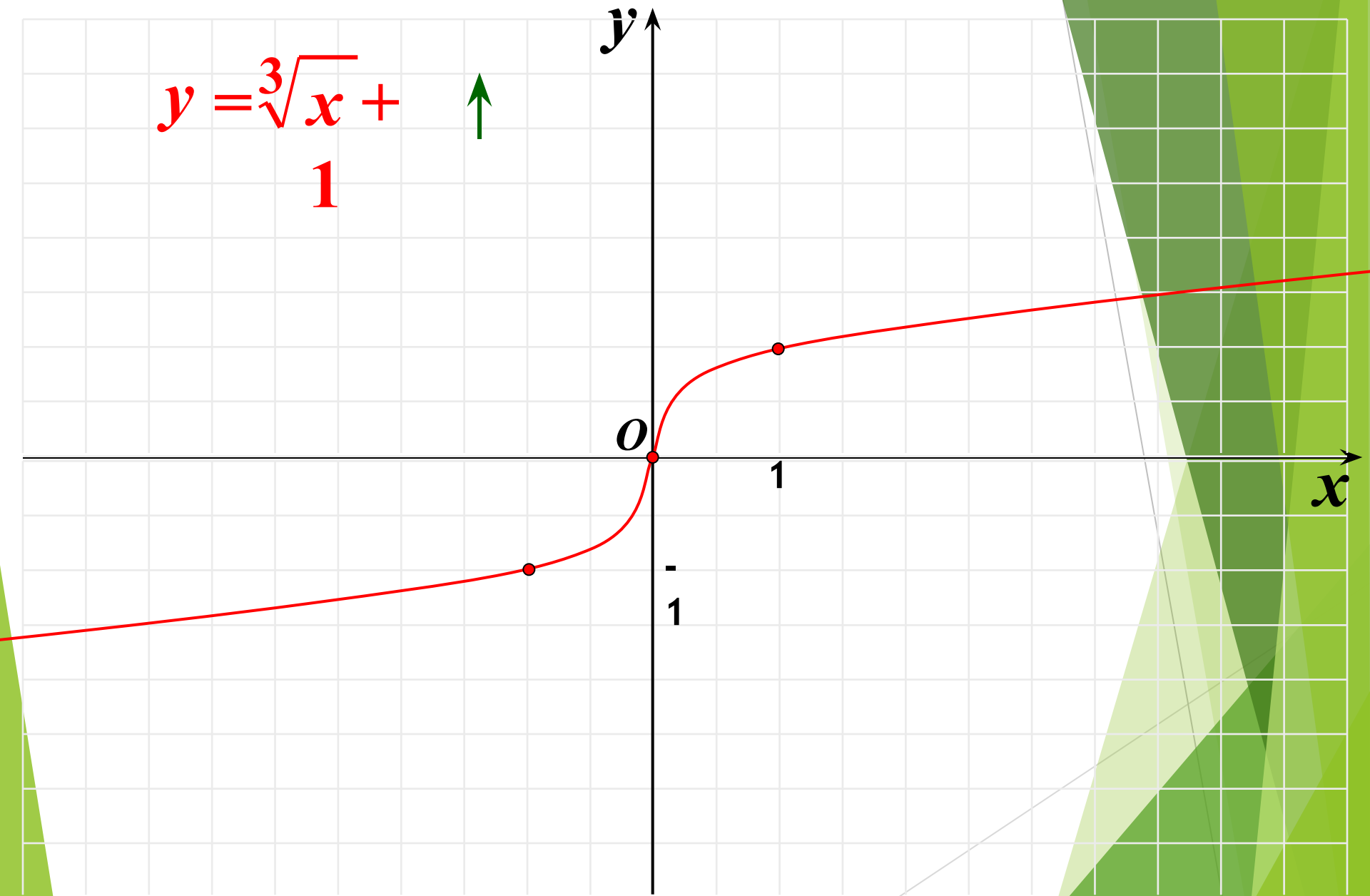
$$y < 0 \quad x < 0$$

Функция возрастает $x \in (-\infty; +\infty)$

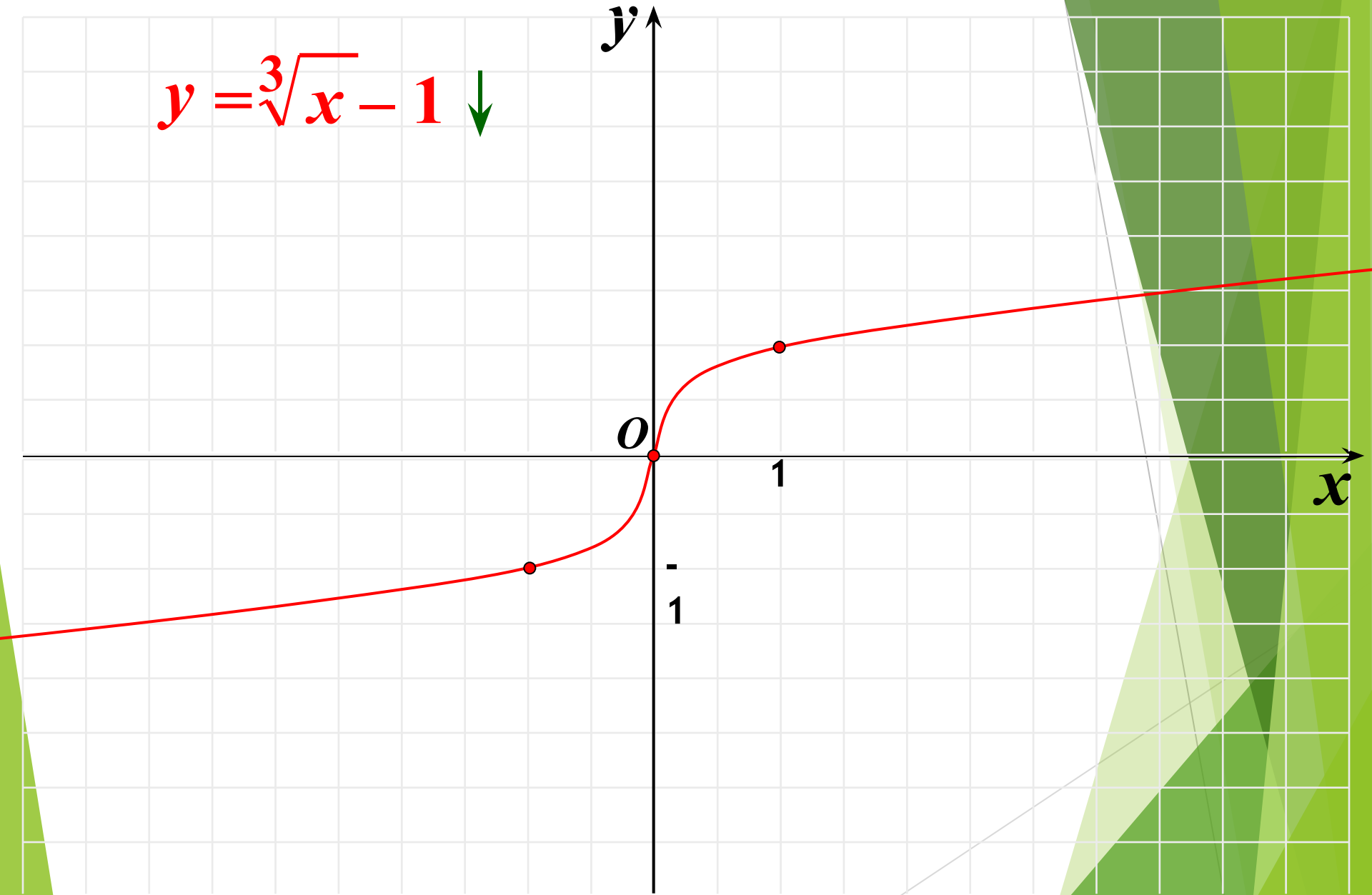
$$y = \sqrt[3]{x+2}$$



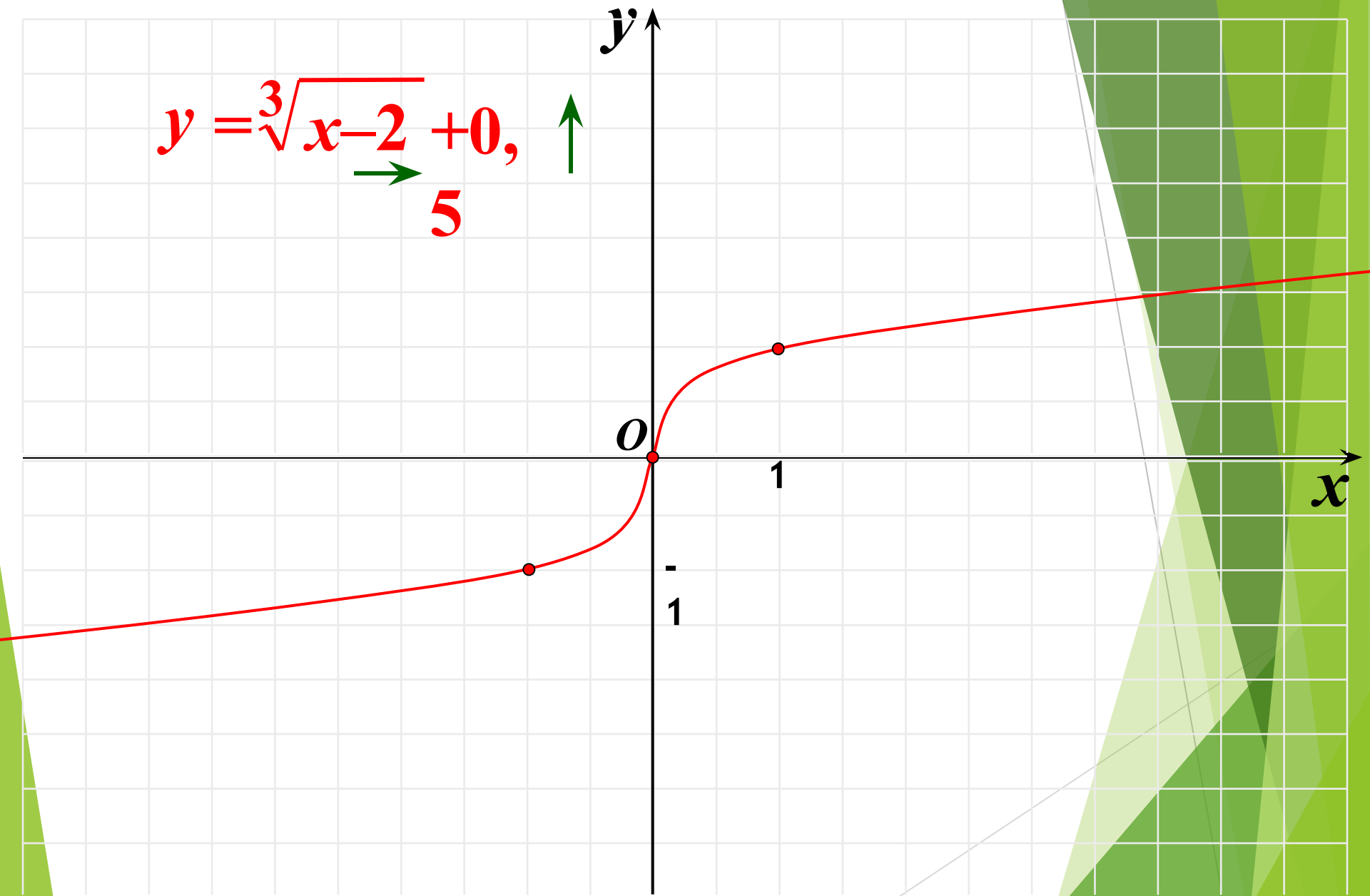
$$y = \sqrt[3]{x} + 1$$



$$y = \sqrt[3]{x} - 1 \downarrow$$



$$y = \sqrt[3]{x-2} + 0, \quad \begin{matrix} \rightarrow \\ 5 \end{matrix} \quad \begin{matrix} \uparrow \\ 5 \end{matrix}$$



$$y = \sqrt[3]{x}$$

2

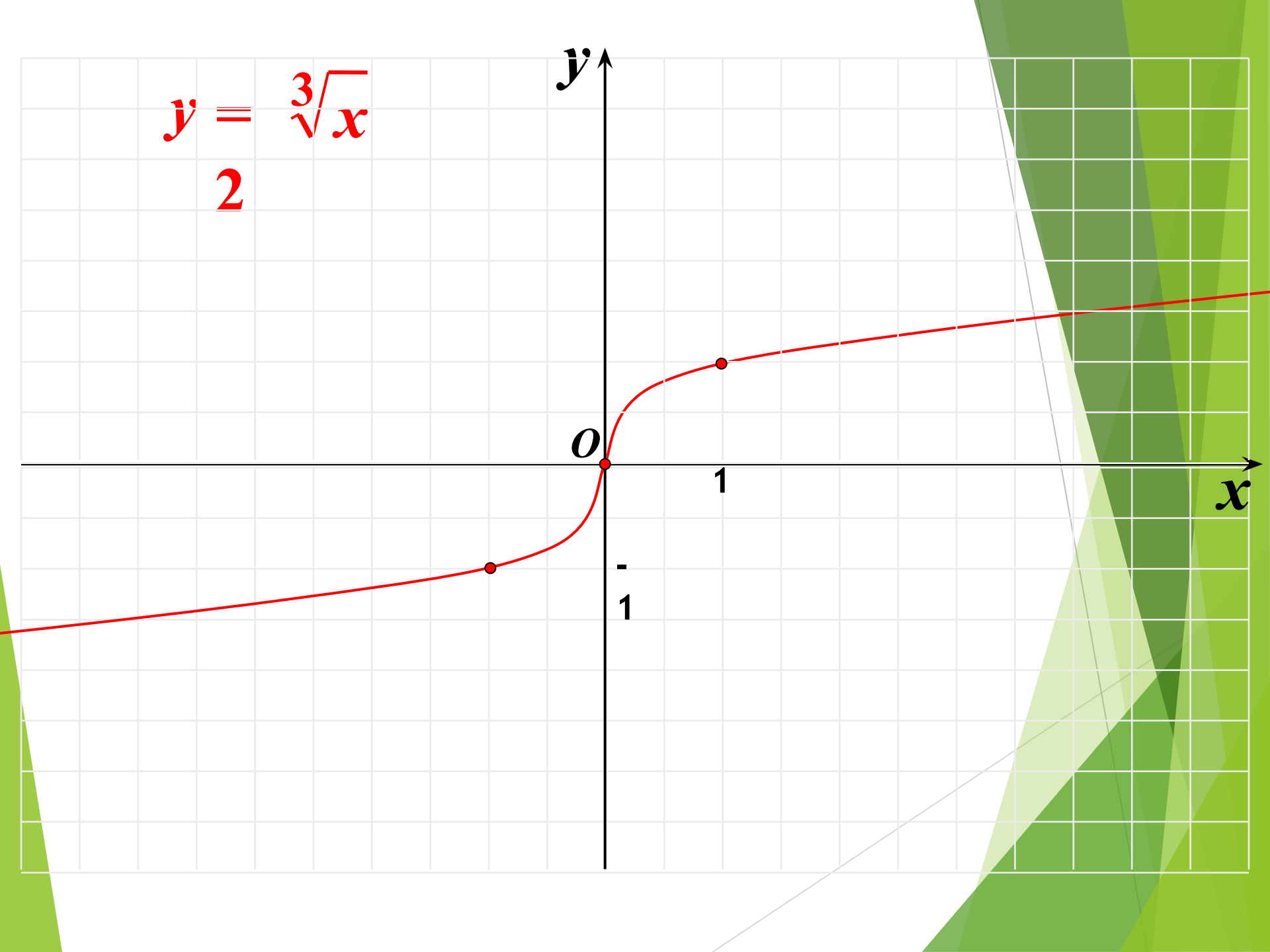
y

O

1

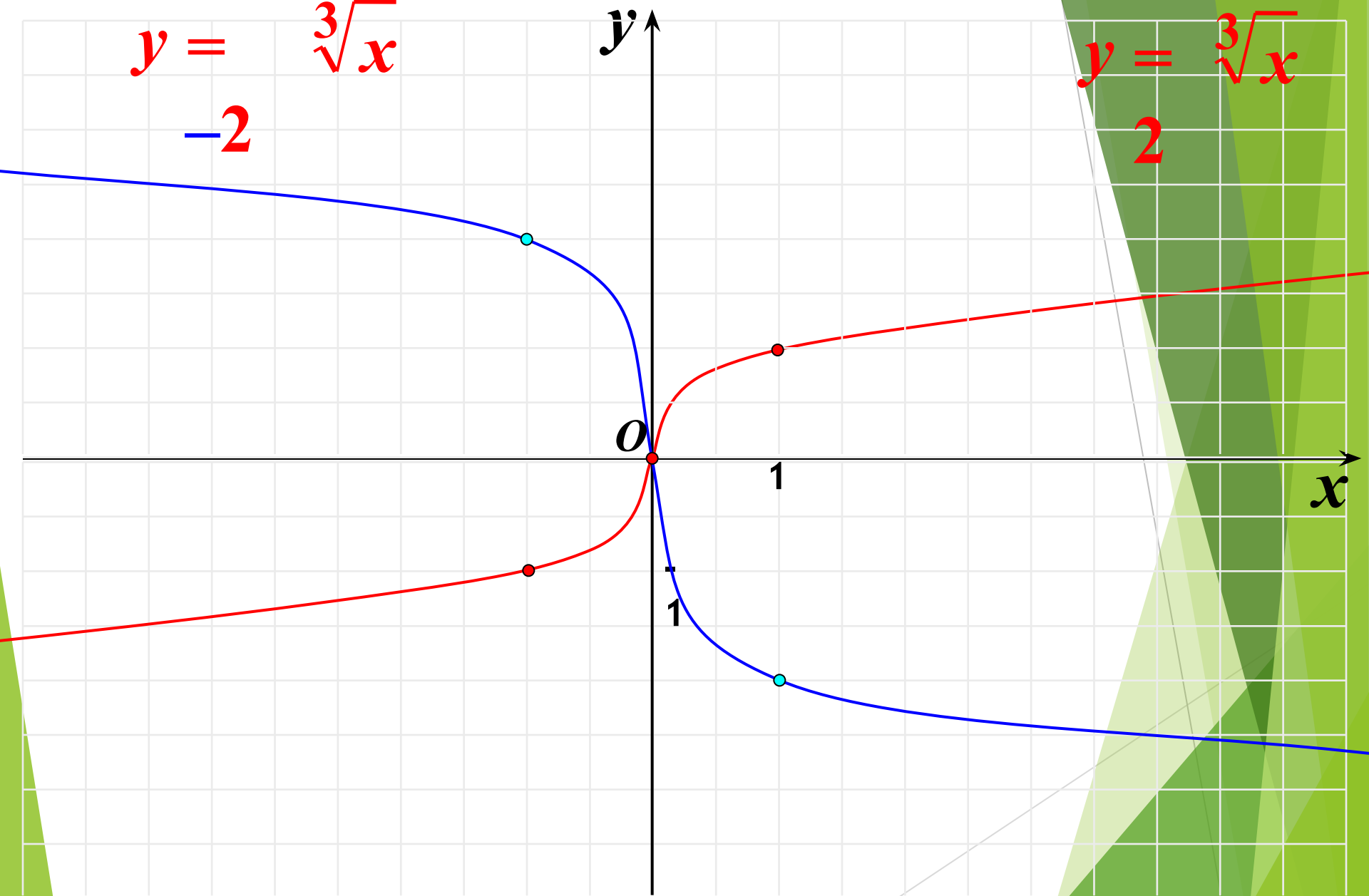
-1

x

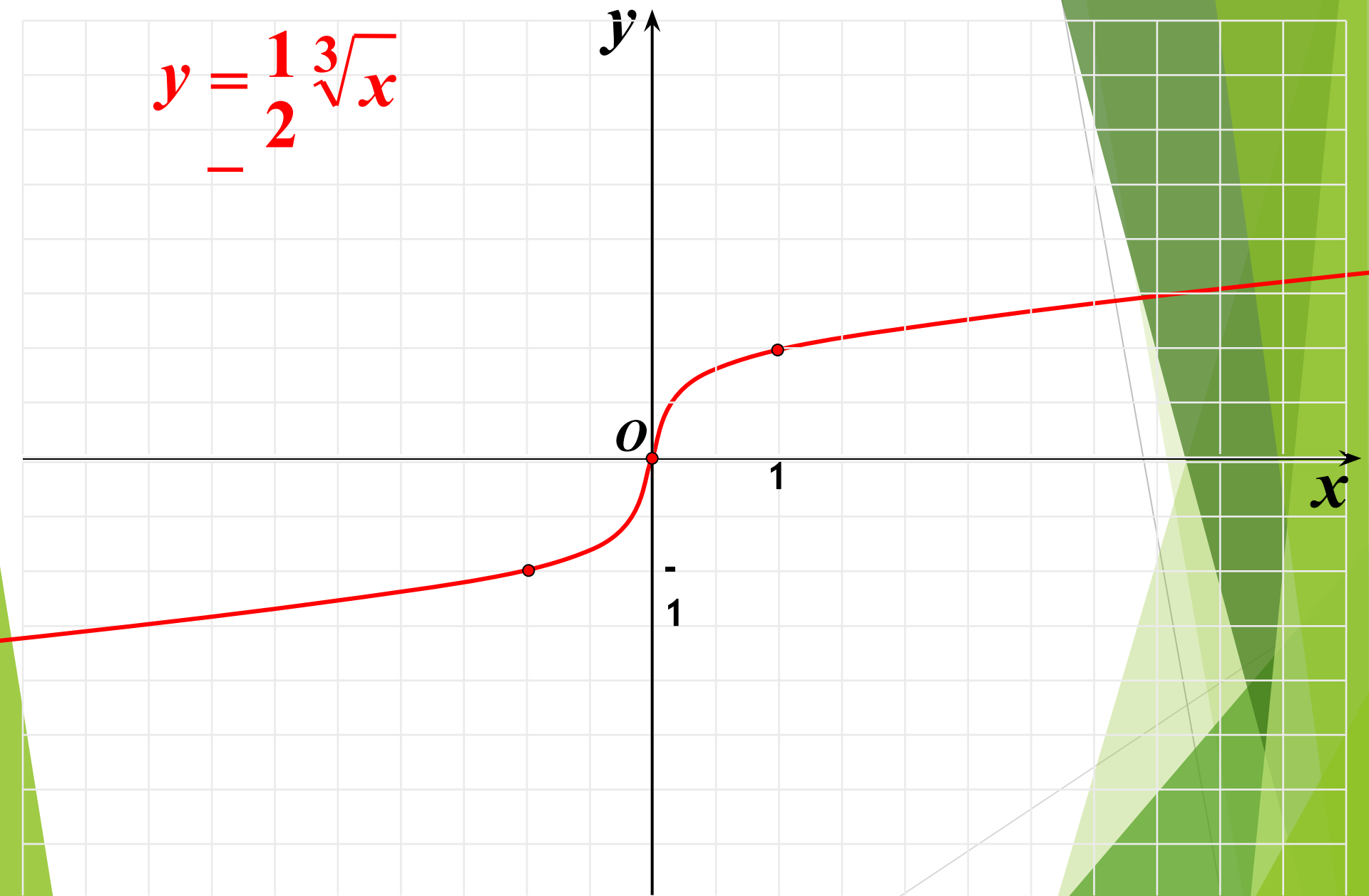


$$y = \sqrt[3]{x} - 2$$

$$y = \sqrt[3]{x} + 2$$



$$y = \frac{1}{2} \sqrt[3]{x}$$



$$y = \sqrt[3]{|x|}$$

y

0

1

-1

x

