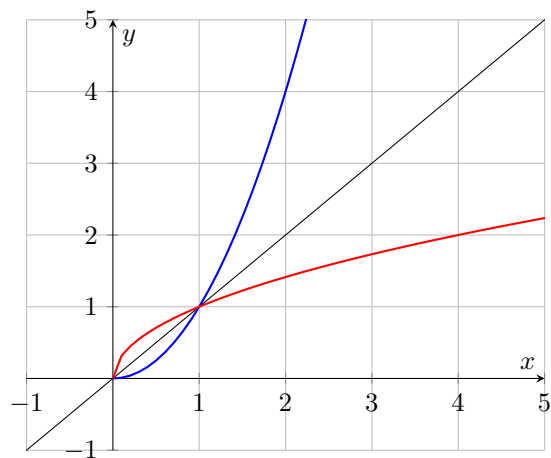$y = x^2; x \in [0; \infty)$

$x = \sqrt{y};$

$Y = [0, \infty); X = [0, \infty);$

(19.)

$y = x^2 - 2x - 3; x \in [1; \infty)$

$x^2 - 2x - 3 - y = 0$
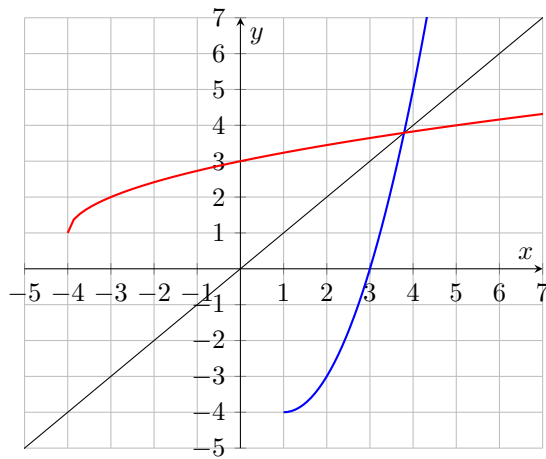
$x^2 - 2x - (3 + y) = 0$

$x = \dfrac{2 + \sqrt{4 + 4(3 + y)}}{2}$

$x = \dfrac{2 + \sqrt{4(4 + y)}}{2}$

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

$x = 1 + \sqrt{4 + y}; y \in (-4; \infty]$

$Y = [-4, \infty); X = [1, \infty)$

(20.)

$y = x^2 - 3x - 4; x \in (-\infty; 1,5]$

$x^2 - 3x - 4 - y = 0$
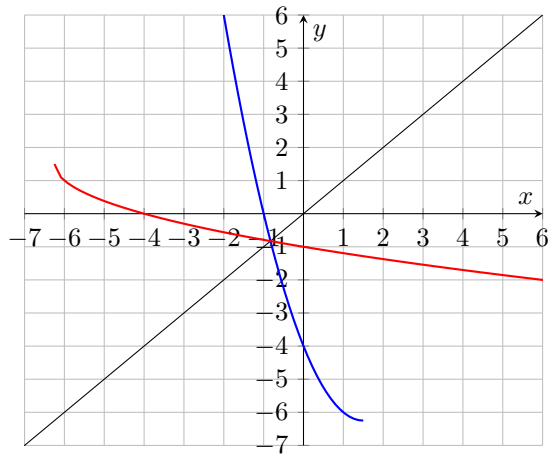
$x^2 - 3x - (4 + y) = 0$

$x = \dfrac{3 - \sqrt{9 + 4(4 + y)}}{2}$

$x = \dfrac{3 - \sqrt{25 + 4y}}{2}$

$x = 1,5 - \sqrt{\dfrac{25 + 4y}{4}}$

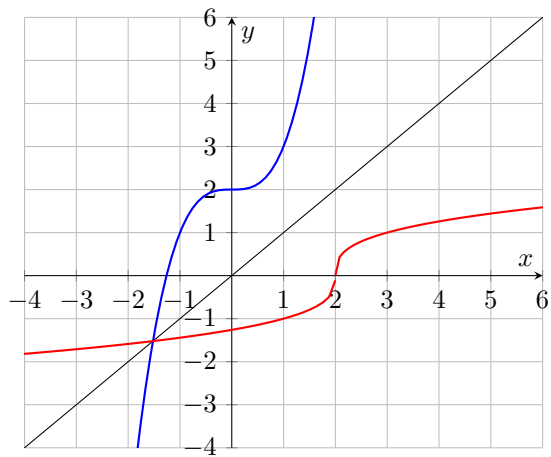$x = 1,5 - \sqrt{6,25 + y}; y \in [-6.25; \infty)$

$Y = [-6,25; \infty); X = (-\infty; 1,5]$

(21.)
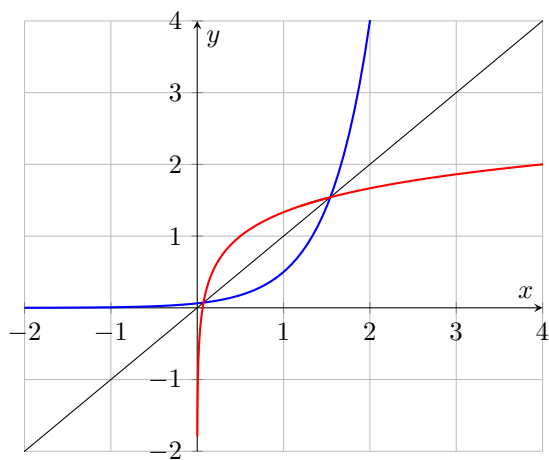
$$y = x^3 + 2$$

$$x^3 = y - 2$$

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

$$Y = (-\infty, \infty); X = (-\infty, \infty);$$

$$\boxed{22.}$$

$y = 2^{3x-4}$

$3x - 4 = \log_2 y$

$x = \dfrac{\log_2 y + 4}{3}; y \in (0; \infty)$
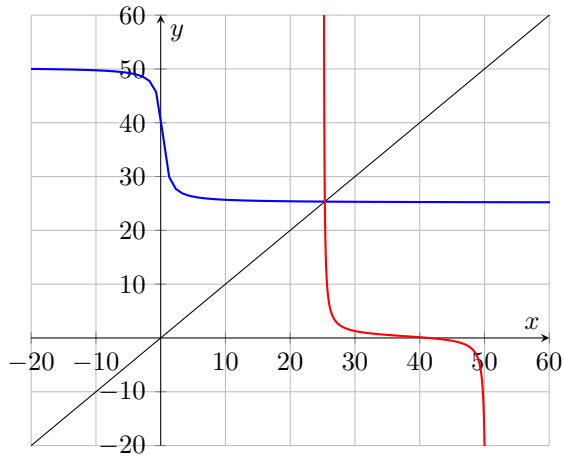

$Y = (0; \infty); X = (-\infty; \infty)$

(23.)

$$y = 8\pi + 8 arc\cot \frac{3x-1}{2}; (y \in (8\pi; 16\pi))$$

$$arc\cot \frac{3x-1}{2} = \frac{y}{8} - \pi$$

$$\frac{3x-1}{2} = \cot(\frac{y}{8} - \pi)$$

$$3x = 2\cot(\frac{y}{8} - \pi) + 1$$

$$x = \frac{1}{3} + \frac{2}{3} \cot \frac{y}{8}; y \in (0; 8\pi)$$

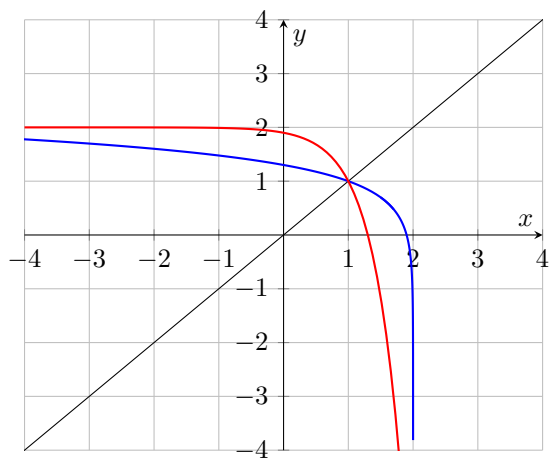$$Y = (8\pi; 16\pi); X = (-\infty, \infty)$$

(24.)

$y = 1 + \log|x - 2|; x \in (-\infty; 2)$

$y = 1 + \log(2 - x)$

$\log(2 - x) = y - 1$

$2 - x = 10^{y-1}$

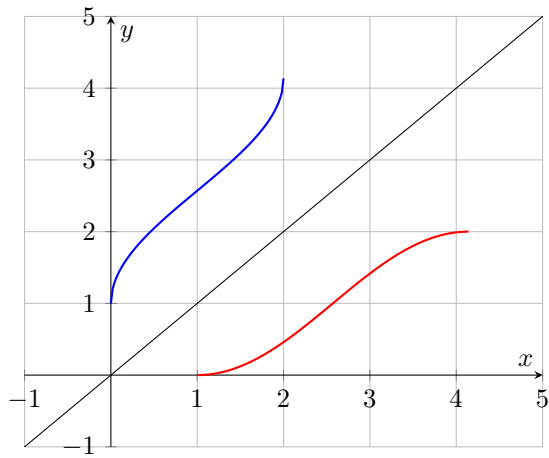$x = 2 - 10^{y-1}$

$Y = (-\infty; \infty); X = (-\infty; 2)$

$y = 1 + \arccos(1 - x); (x \in [0, 2])$

$\arccos(1 - x) = y - 1$

$1 - x = \cos(y - 1)$

$x = 1 - \cos(y - 1); y \in [1; \pi + 1]$
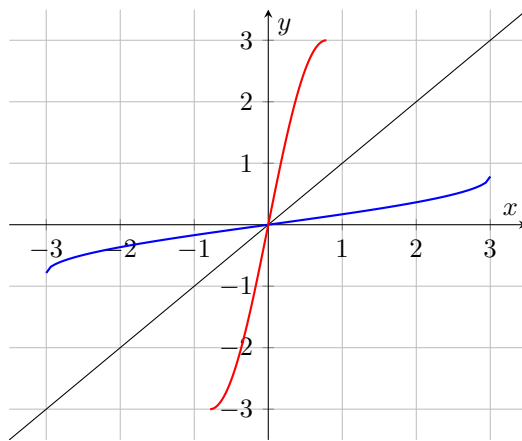

$Y = [1; 1 + \pi]; X = [0, 2];$

(26.)

$$y = \frac{1}{2} \arcsin \frac{x}{3}; \; (x \in [-3; 3])$$

$$\arcsin \frac{x}{3} = 2y;$$

$$\frac{x}{3} = \sin 2y;$$

$$x = 3 \sin 2y;$$

$$Y = [-\frac{\pi}{4}; \frac{\pi}{4}]; X = [-3; 3]$$