

Биквадратные уравнения

1)  $25x^4 + 66x^2 - 27 = 0$

$y = x^2$

$25y^2 + 66y - 27 = 0$

$d = 33^2 + 25 \cdot 27 = 3^2(121 + 75) = 9 \cdot 196 = (3 \cdot 14)^2$

$y_1 = (-33 - 42) / 25 = -75 / 25 = -3$

$y_2 = (-33 + 42) / 25 = 9 / 25$

$-3 = x^2$  корня нет

$9/25 = x^2$

$x = \pm \frac{3}{5}$

ответ:  $\pm \frac{3}{5}$

2)  $x^6 + 9x^3 + 8 = 0$  дз

$y = x^3$

$y^2 + 9y + 8$

$y_1 = -1$

$y_2 = -8$

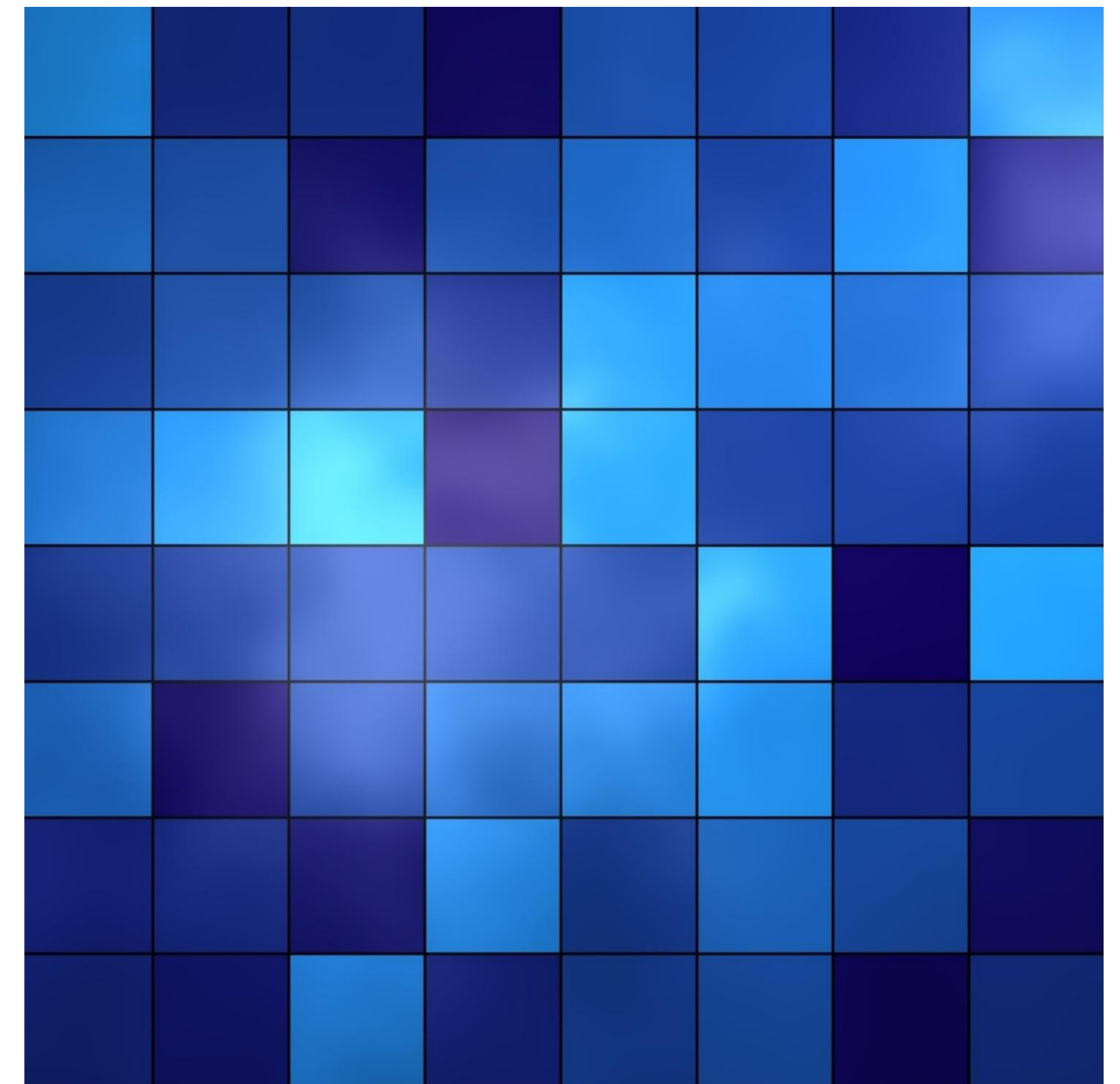
$x^3 = -1$

$x = -1$

$x^3 = -8$

$x = -2$

ответ:  $-1, 2$



$D = (b/2)^2 - ac$

$x_{1,2} = (-b/2 \pm \sqrt{D})/a$