

$$\begin{aligned}(x_0 - x_1)^2 + (y_0 - y_1)^2 &= d_2^2 \\ (x_0 - x_2)^2 + (y_0 - y_2)^2 &= d_1^2\end{aligned}$$

$$\begin{aligned}x_0^2 - 2x_0x_1 + x_1^2 + y_0^2 - 2y_0y_1 + y_1^2 &= d_2^2 \\ x_0^2 - 2x_0x_2 + x_2^2 + y_0^2 - 2y_0y_2 + y_2^2 &= d_1^2\end{aligned}$$

$$[x_0^2 - 2x_0x_1 + x_1^2 + y_0^2 - 2y_0y_1 + y_1^2] - [x_0^2 - 2x_0x_2 + x_2^2 + y_0^2 - 2y_0y_2 + y_2^2] = d_2^2 - d_1^2$$

$$-2x_0(x_1 - x_2) - 2y_0(y_1 - y_2) + x_1^2 - x_2^2 + y_1^2 - y_2^2 = d_2^2 - d_1^2$$

$$-2x_0(x_1 - x_2) - 2y_0(y_1 - y_2) = d_2^2 - d_1^2 - x_1^2 + x_2^2 - y_1^2 + y_2^2 = C$$

Ако $x_1 - x_2 \neq 0$, тогава $-2x_0(x_1 - x_2) = C + 2y_0(y_1 - y_2)$. Тогава

$$x_0 = \frac{C + 2y_0(y_1 - y_2)}{-2(x_1 - x_2)} = \frac{C}{-2(x_1 - x_2)} + \frac{2y_0(y_1 - y_2)}{-2(x_1 - x_2)} = \frac{C}{-2(x_1 - x_2)} - \frac{y_0(y_1 - y_2)}{(x_1 - x_2)}.$$

Нека $a = \frac{C}{-2(x_1 - x_2)}$ и $b = \frac{y_0(y_1 - y_2)}{(x_1 - x_2)}$. Тогава $x_0 = a - by_0$.

$$\begin{aligned}x_0^2 - 2x_0x_1 + x_1^2 + y_0^2 - 2y_0y_1 + y_1^2 &= d_2^2 \\ (a - by_0)^2 - 2(a - by_0)x_1 + x_1^2 + y_0^2 - 2y_0y_1 + y_1^2 &= d_2^2. \\ a^2 - 2aby_0 + b^2y_0^2 - 2ax_1 + 2bx_1y_0 + x_1^2 + y_0^2 - 2y_0y_1 + y_1^2 &= d_2^2. \\ y_0^2[b^2 + 1] + y_0[-2ab + 2bx_1 - 2y_1] + [a^2 - 2ax_1 + x_1^2 + y_1^2 - d_2^2] &= 0.\end{aligned}$$

$$c_2 = b^2 + 1, c_1 = -2ab + 2bx_1 - 2y_1, c_0 = a^2 - 2ax_1 + x_1^2 + y_1^2 - d_2^2.$$

$$\begin{aligned}
&\text{Ако } c_2 \neq 0: \\
&c_2 y_0^2 + c_1 y_0 + c_0 = 0. \\
&D = c_1^2 - 4c_2 c_0. \\
&y_0' = \frac{-c_1 - \sqrt{D}}{2c_2}. \\
&y_1'' = \frac{-c_1 + \sqrt{D}}{2c_2}.
\end{aligned}$$

$$\text{Иначе } y_0 = \frac{-c_0}{c_1}.$$