Dovođenje kvadratnog trinoma na kanonski oblik

$$
\begin{aligned}
ax^2+bx+c &= a\left(x^2+\frac{b}{a}x+\frac{c}{a}\right)=a\left[\left(x+\frac{b}{2a}\right)^2-\left(\frac{b}{2a}\right)^2+\frac{c}{a}\right]= \\
&= a\left[\left(x+\frac{b}{2a}\right)^2-\frac{b^2}{4a^2}+\frac{c}{a}\right]=a\left[\left(x+\frac{b}{2a}\right)^2+\frac{-b^2+4ac}{4a^2}\right]= \\
&= a\left[\left(x+\frac{b}{2a}\right)^2-\frac{b^2-4ac}{4a^2}\right]=a\left(x+\frac{b}{2a}\right)^2-\frac{b^2-4ac}{4a}= \\
&= a\left(x+\frac{b}{2a}\right)^2-\frac{b^2-4ac}{4a}=a\left[x-\left(-\frac{b}{2a}\right)\right]^2-\frac{D}{4a}
\end{aligned}
$$

Ovo je tzv. kanonski oblik $y=a(x-x_0)^2+y_0$ iz kojeg čitamo koordinate tjemena $T(x_0,\ y_0)$ pri čemu je $x_0=-\frac{b}{2a}, y_0=-\frac{D}{4a}$ tj. $T\left(-\frac{b}{2a},-\frac{D}{4a}\right)$