> Если $c>0;\ a=0$: $\exists\, u = \left(\ln\left(\frac{-b}{2c}\right),\ 1\ ;\ \frac{-b}{2c}\right) \in cl(K)$ (легко проверить)

$$v^T u = b + c\cdot\frac{-b}{2c} = \frac{1}{2}b < 0 \Rightarrow v \notin (cl(K))^*$$

7) $(a \geq 0) \,\&\, (a \neq 0) = (a > 0)$ — 1 шт.

$\exists\, u = (-1,0,0) \in cl(K)$; $v^T u = -a < 0 \Rightarrow v \notin (cl(K))^*$

$\cancel{\left(\exp\left(\frac{b}{a}\right) > -\frac{ec}{a}\right) \& \left((a\neq 0) \vee (b<0)\right)}$ =

8-9) $\underbrace{\left(\exp\left(\frac{b}{a}\right) > -\frac{ec}{a}\right) \& (a \neq 0)} \vee \left(\exp\left(\frac{b}{a}\right) > -\frac{ec}{a}\right) \& (b<0)$ — 2 шт.

> Если $a>0$: $\exists\, u = (-1,0,0) \in cl(K)$; $v^T u = -a < 0 \Rightarrow v \notin (cl(K))^*$

> Если $a<0;\ c<0$: $\exists\, u = (0,0,1) \in cl(K)$; $v^T u = c < 0 \Rightarrow v \notin (cl(K))^*$

> Если $a<0;\ c=0$: $\exists\, u = (1,\ 1/\gamma\ ;\ e^{\gamma}/\gamma)$, $\gamma > 0$. Очевидно, что $u \in cl(K)$

$$v^T u = \overset{<0}{a} + b/\gamma < 0 \text{ для } \gamma > -b/a. \Rightarrow v \notin (cl(K))^*$$

> Если $a<0,\ c>0$: $\exists\, u = \left(\frac{a-b}{ac}\cdot\exp\left(-\frac{a-b}{a}\right);\ \exp\left(-\frac{a-b}{a}\right)\cdot\frac{1}{c};\ \frac{1}{c}\right) \in cl(K)$

$$v^T u = ax + by + cz = \frac{a-b}{c}\exp\left(-\frac{a-b}{a}\right) + \frac{b}{c}\exp\left(-\frac{a-b}{a}\right) + 1$$

$$\Leftrightarrow \frac{a}{c}\exp\left(-\frac{a-b}{a}\right) + 1 < 0 \Leftrightarrow \exp\left(-\frac{a-b}{a}\right) > -\frac{c}{a}$$

$$\Updownarrow$$

$$\exp\left(\frac{b}{a}\right) > -\frac{ec}{a}$$

Значит, $v \notin (cl(K))^*$

Таким образом, $(cl(K))^* \subseteq K_d$. $(cl(K))^* = K_d$ доказано.