Zadatak 16. Dvije stranice paralelograma $ABCD$ pripadaju pravcima $x-2y+4=0$ i $x+y-8=0$. Ako je $A(0,-1)$, odredi koordinate ostalih vrhova paralelograma.

Rješenje.

$$A(0,-1)$$

$$p \ \ldots \ x-2y+4=0 \implies y=\frac{1}{2}x+2$$

$$q \ \ldots \ \underline{x+y-8=0 \implies y=-x+8}$$

$$\{C\}=p\cap q \ \ldots \ \frac{1}{2}x+2=-x+8 \quad /\cdot 2$$

$$x+4=-2x+16$$

$$3x=12$$

$$\boxed{x=4}$$

$$y=-4+8$$

$$\boxed{y=4} \implies \boxed{C(4,4)}$$

r pravac kroz točku A, paralelan sa p

$$y+1=\frac{1}{2}(x-0) \quad /\cdot 2$$

$$2y+2=x$$

$$\boxed{x-2y-2=0}$$

$$\{B\}=r\cap q \ \ldots \ -x+8=\frac{1}{2}x-1 \quad /\cdot 2$$

$$-2x+16=x-2$$

$$-3x=-18$$

$$\boxed{x=6}$$

$$y=-6+8$$

$$\boxed{y=2} \implies \boxed{B(6,2)}$$

s pravac kroz točku A, paralelan sa q

$$y+1=-1(x-0)$$

$$\boxed{y+x+1=0}$$

$$\{D\}=s\cap p \ \ldots \ -x-1=\frac{1}{2}x+2 \quad /\cdot 2$$

$$-2x-2=x+4$$

$$-3x=6$$

$$\boxed{x=-2}$$

$$y=2-1$$

$$\boxed{y=1} \implies \boxed{D(-2,1)}$$