In[1]:=
$$\text{Highpass160} = \frac{s\text{^}2}{s\text{^}2 + \frac{W1}{C}\, s + W1\text{^}2}$$

Out[1]=
$$\frac{s^2}{s^2 + \frac{s\,W1}{C} + W1^2}$$

In[2]:=
$$s = P\,\frac{z-1}{z+1}$$

Out[2]=
$$\frac{P\,(-1+z)}{1+z}$$

In[3]:=
$$\text{Highpass160}$$

Out[3]=
$$\frac{P^2\,(-1+z)^2}{(1+z)^2\left(W1^2 + \frac{P^2\,(-1+z)^2}{(1+z)^2} + \frac{P\,W1\,(-1+z)}{C\,(1+z)}\right)}$$

In[4]:=
$$\text{Together[ExpandAll[\%]]}$$

Out[4]=
$$\frac{C\,(P^2 - 2\,P^2\,z + P^2\,z^2)}{C\,P^2 - P\,W1 + C\,W1^2 - 2\,C\,P^2\,z + 2\,C\,W1^2\,z + C\,P^2\,z^2 + P\,W1\,z^2 + C\,W1^2\,z^2}$$

In[5]:=
$$\text{Collect[Numerator[\%4], z]}$$

Out[5]=
$$C\,P^2 - 2\,C\,P^2\,z + C\,P^2\,z^2$$

In[6]:=
$$\text{Collect[Denominator[\%4], z]}$$

Out[6]=
$$C\,P^2 - P\,W1 + C\,W1^2 + (-2\,C\,P^2 + 2\,C\,W1^2)\,z + (C\,P^2 + P\,W1 + C\,W1^2)\,z^2$$

In[7]:=
$$\text{Collect[\%5 / (C P}^2\text{ + P W1 + C W1}^2\text{), z]}$$

Out[7]=
$$\frac{C\,P^2}{C\,P^2 + P\,W1 + C\,W1^2} - \frac{2\,C\,P^2\,z}{C\,P^2 + P\,W1 + C\,W1^2} + \frac{C\,P^2\,z^2}{C\,P^2 + P\,W1 + C\,W1^2}$$

In[9]:=
$$\text{Collect[\%6 / (C P}^2\text{ + P W1 + C W1}^2\text{), z]}$$

Out[9]=
$$\frac{C\,P^2 - P\,W1 + C\,W1^2}{C\,P^2 + P\,W1 + C\,W1^2} + \frac{(-2\,C\,P^2 + 2\,C\,W1^2)\,z}{C\,P^2 + P\,W1 + C\,W1^2} + z^2$$