

$$\text{In}[1]:= \text{ellipticlowpassfirstordersection} = \frac{W2}{s + W2}$$

$$\text{Out}[1]= \frac{W2}{s + W2}$$

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

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

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

$$\text{Out}[3]= \frac{W2}{W2 + \frac{P (-1+z)}{1+z}}$$

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

$$\text{Out}[4]= \frac{W2 (1 + z)}{-P + W2 + P z + W2 z}$$

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

$$\text{Out}[5]= W2 + W2 z$$

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

$$\text{Out}[6]= -P + W2 + (P + W2) z$$

$$\text{In}[7]:= \text{Collect}[\%5 / (P + W2), z]$$

$$\text{Out}[7]= \frac{W2}{P + W2} + \frac{W2 z}{P + W2}$$

$$\text{In}[8]:= \text{Collect}[\%6 / (P + W2), z]$$

$$\text{Out}[8]= \frac{-P + W2}{P + W2} + z$$

$$\text{In}[9]:= \%7 / \%8$$

$$\text{Out}[9]= \frac{\frac{W2}{P+W2} + \frac{W2 z}{P+W2}}{\frac{-P+W2}{P+W2} + z}$$