

Block diagram transformations

Transformation rules

Transformations below do not change the transfer function of the diagram.



Figure 1: Concatenating two or more blocks



Figure 2: Moving a block after a summation point



Figure 3: Moving a block before the summation point

Practice tasks

Perform block diagram reduction and determine the single transfer function $\frac{Y(s)}{R(s)}$

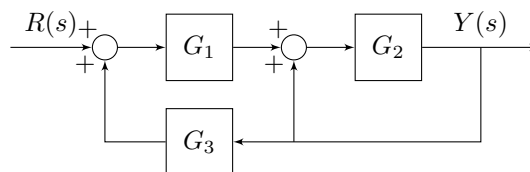


Figure 4: Task 1

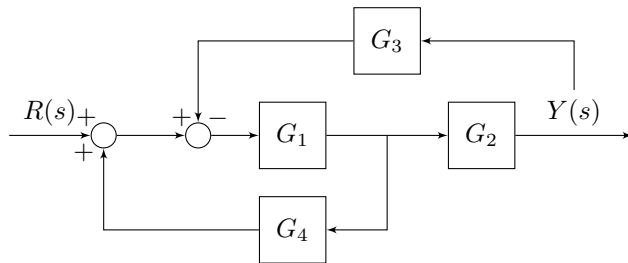


Figure 5: Task 2

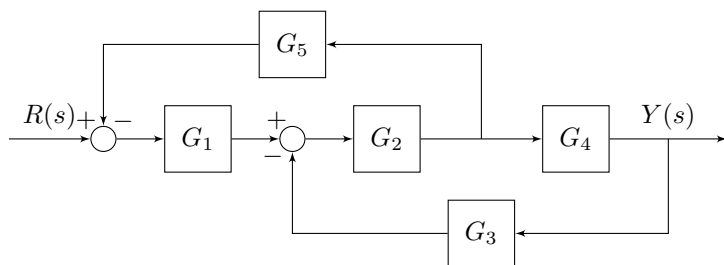


Figure 6: Task 3

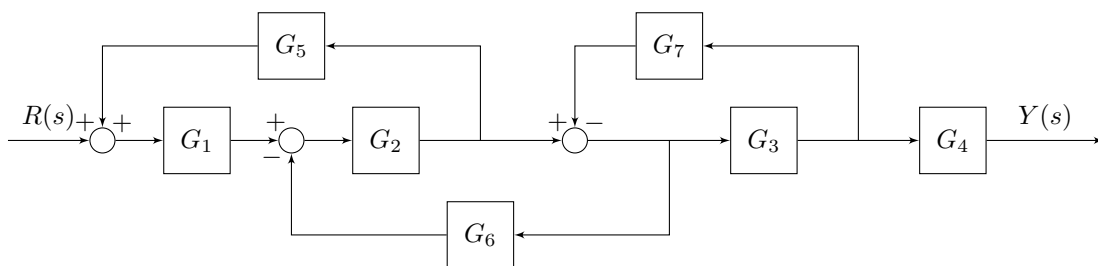


Figure 7: Task 4