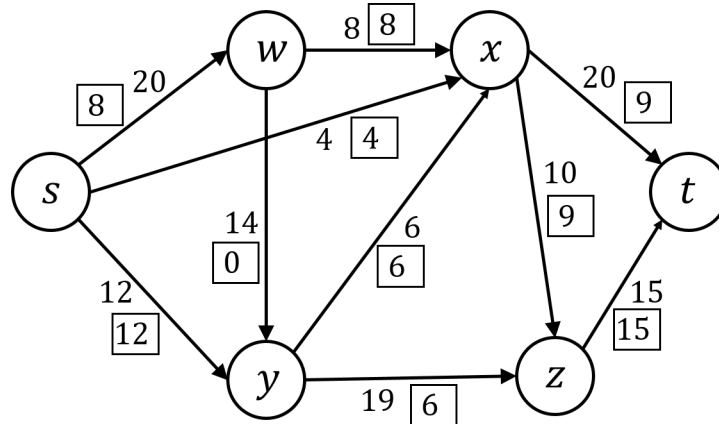


# COSC 311: ALGORITHMS

## MINI 9

Due Wednesday, November 7 in class

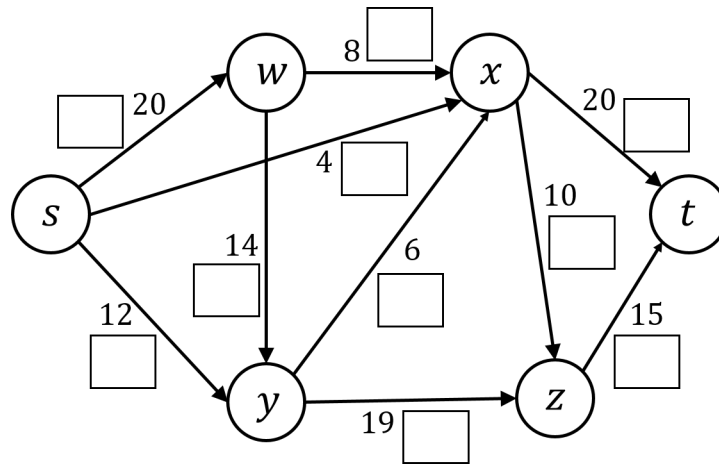
Here's a graph, where the numbers in boxes represent a flow and the numbers not in boxes represent edge capacities:



**1. Residual graphs.** Draw the residual graph based on this flow.

**2. Augmenting paths.** State an augmenting path in the residual graph.

**3. Augment.** Show the new flow after you update based on the augmenting path you identified in (2).



**4. Min cuts.** Is the flow you gave in (3) a max flow? Explain why or why not by giving the min cut in this graph.