

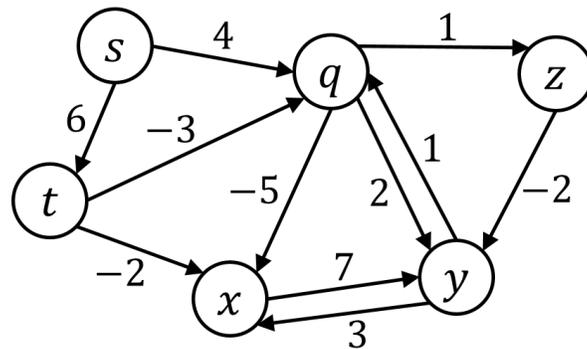
## Shortest Paths: Bellman-Ford Algorithm

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BellmanFord( $G=(V,E)$ ,  $s$  in  $V$ )
   $W[n][n]$ : new array
  set  $W[0][s]=0$ , set  $W[0][j]=\text{infty}$  for  $j$  not  $s$ 
  for  $i = 1$  to  $n$ 
    for each  $j$  in  $V$ 
      set  $\text{best} = W[i-1][j]$ 
      for each  $u$  with  $(u,j)$  in  $E$ 
         $\text{newPath} = c(u,j) + W[i-1][u]$ 
        if  $\text{newPath} < \text{best}$ 
          set  $\text{best} = \text{newPath}$ 

   $W[i][j] = \text{best}$ 
  return  $W[n-1]$ 

```



Run the Bellman-Ford algorithm on the above graph, filling in the following table:

	0	1	2	3	4	5
$s$						
$q$						
$t$						
$x$						
$y$						
$z$						