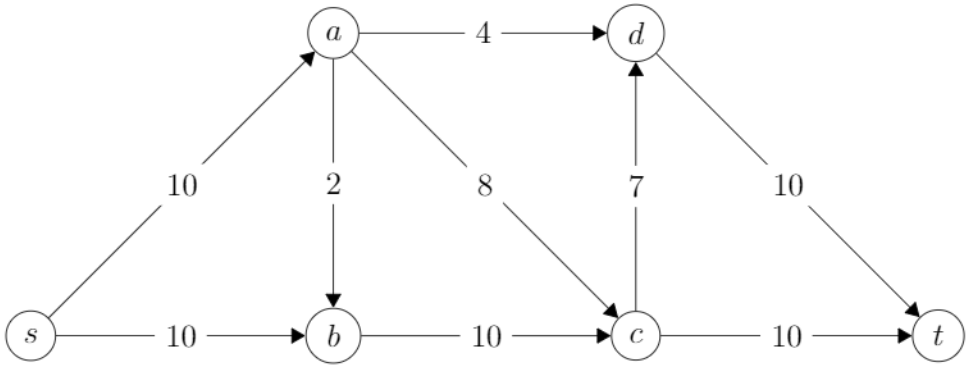
Maximum Flow

Consider the following flow network with source s and sink t:



Question 1: After augmenting along the path $s \to a \to c \to t$, along $s \to a \to b \to c \to t$, and finally along $s \to b \to c \to d \to t$, what is the augmenting path of highest capacity?

- [A] $s \to b \to c \to a \to d \to t$, capacity $+1$
- [B] none, the reached flow value is optimal
- [C] $s \to b \to c \to d \to t$, capacity $+1$
- [D] $s \to b \to a \to d \to t$, capacity $+2$
- [E] $s \to b \to a \to c \to t$, capacity $+2$

Question 2: Are the flows across ***all*** cuts after the 3 augmentations of Question 1 equal?

[A] yes: 16 [B] yes: 17 [C] yes: 18 [D] yes: 19 [E] no

Question 3: What is the maximum flow value (after ***all*** possible augmentations)?

[A] 16 [B] 17 [C] 18 [D] 19 [E] 20

Question 4: What is the capacity of a minimum (s, t)-cut?

[A] 16 [B] 17 [C] 18 [D] 19 [E] 20