The Twin Paradox
Let's analyze the twin paradox

You and Yan are separated by a distance of 20 light-years, as measured from your reference frame. Yan is at rest with respect to you. The positive direction is from you toward Yan. Isabelle is passing you with a velocity, according to you, of $\vec{v}_{IY} = +0.8c$, while Jack is passing Yan with a velocity, according to Yan of $\vec{v}_{JY} = -0.8c$.

You and Isabelle both set your clocks to zero when Isabelle passes you.

Yan and Jack both set their clocks to zero when Jack passes Yan.

Your clock matches Yan's clock, according to you and Yan. You send a light pulse toward Yan when Isabelle passes you.

Fill in the tables to show the various clock readings, according to the appropriate observer, corresponding to the various events.

Table 1: Clock readings according to You.

Event	Your clock	Yan's clock	Isabelle's clock	Jack's clock
Isabelle passes you				
Jack passes Yan				
Light arrives at Yan				
Isabelle passes Yan				
Jack passes Isabelle				

Table 2: Clock readings according to Isabelle.

Event	Your clock	Yan's clock	Isabelle's clock	Jack's clock
Isabelle passes you				
Jack passes Yan				
Light arrives at Yan				
Isabelle passes Yan				
Jack passes Isabelle				

Table 3: Clock readings according to Jack.

Event	Your clock	Yan's clock	Isabelle's clock	Jack's clock
Isabelle passes you				
Jack passes Yan				
Light arrives at Yan				
Isabelle passes Yan				
Jack passes Isabelle				

Now let's set up the twin paradox situation. Isabelle leaves You, on Earth, at a time $t = 0$ and travels to the distant star where Yan is. She travels at a speed of $0.8c$. She takes a negligible time to turn around (even a few days is negligible when we're talking about times measured in years) and returns to Earth at a speed of $0.8c$.

Let's fill in the clock readings according to you and according to Isabelle.

Table 1: Clock readings according to You.

Event	Your clock	Yan's clock	Isabelle's clock
Isabelle leaves you			
Isabelle arrives at Yan, outbound			
Isabelle leaves Yan, inbound			
Isabelle returns to Earth			

Table 2: Clock readings according to Isabelle.

Event	Your clock	Yan's clock	Isabelle's clock
Isabelle leaves you			
Isabelle arrives at Yan, outbound			
Isabelle leaves Yan, inbound			
Isabelle returns to Earth			

Why is the twin paradox not a paradox?