Network Simulation Report

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1 Two Nodes

For this network I created two nodes with a bidirectional link between them. The link is 1 Mbps with a propagation delay of 1 second.
The math that proves the simulator correct is below:

$L = 8000b$
$R = 1000000bps$
$D_{trans} = L / R = 0.008s$
$D_{prop} = 1s$
$D_{total} = D_{trans} + D_{prop} = 1.008s$

1.008s is what the total time it took for the single packet to arrive at node 2 according to the simulator. Therefore, the simulator is correct.
Program output: 0 1 1.008

For this network I created two nodes with a bidirectional link between them. The link is 100 bps with a propagation delay of 10 milliseconds.
The math that proves the simulator correct is below:

$L = 8000b$
$R = 100bps$
$D_{trans} = L / R = 80s$
$D_{prop} = 0.01s$
$D_{total} = D_{trans} + D_{prop} = 80.01s$

80.01s is what the total time it took for the single packet to arrive at node 2 according to the simulator. Therefore, the simulator is correct.
Program output: 0 1 80.01

For this network I created two nodes with a bidirectional link between them. The link is 1 Mbps with a propagation delay of 10 milliseconds.
The math that proves the simulator correct is below:

$L = 8000b$
$R = 1000000bps$
$D_{trans} = L / R = 0.008s$
$D_{prop} = 0.01s$
$D_{total} = D_{trans} + D_{prop} = 0.018s$