Group 2: Closure

Name _____

Computing ID _____

Directions:

– Assemble into groups of approximately 4.

– Each person in each group should have their own paper.

– Put your name and computing id at the top of this page.

– Go to **https://www.cs.virginia.edu/~njb2b/cs2120/f2022/group2.html** (or scan the QR code or follow the link on the course schedule page) and follow the guide there.

– Each person should turn in their paper when finished (or class ends)

Problem 1: Identify T

$T =$

Problem 2: Identify P

$P =$

Problem 3: Circle the properties that P has

Reflexive Irreflexive Symmetric Asymmetric Antisymmetric Transitive

Problem 4: Reflexive Closure of P

Problem 5: Symmetric Closure of P

Problem 6: Transitive Closure of P

Problem 7: Missing Reflexive Pairs

Problem 9: Missing Symmetric Pairs

Problem 8: Add employees to make it Reflexive

Apple	**Meta**	**Alphabet**	**Netflix**
JMU 1992 ODU 2000 VCU 1996	VT 2020 VT 2022 VCU 1980 JMU 1999	VCU 2011 VCU 2019 JMU 2009	

Problem 10: Add employees to make it Symmetric

Apple	**Meta**	**Alphabet**	**Netflix**
JMU 1992 ODU 2000 VCU 1996	VT 2020 VT 2022 VCU 1980 JMU 1999	VCU 2011 VCU 2019 JMU 2009	

Problem 11: Add employees to make it Transitive

Microsoft	**Intel**	**Amazon**	**Ford**
JMU 2000 ODU 2010	ODU 1990 VT 2000	VT 2002 UVA 2011	UVA 2015 VCU 2019

 Elizabeth Orrico and Nathan Brunelle