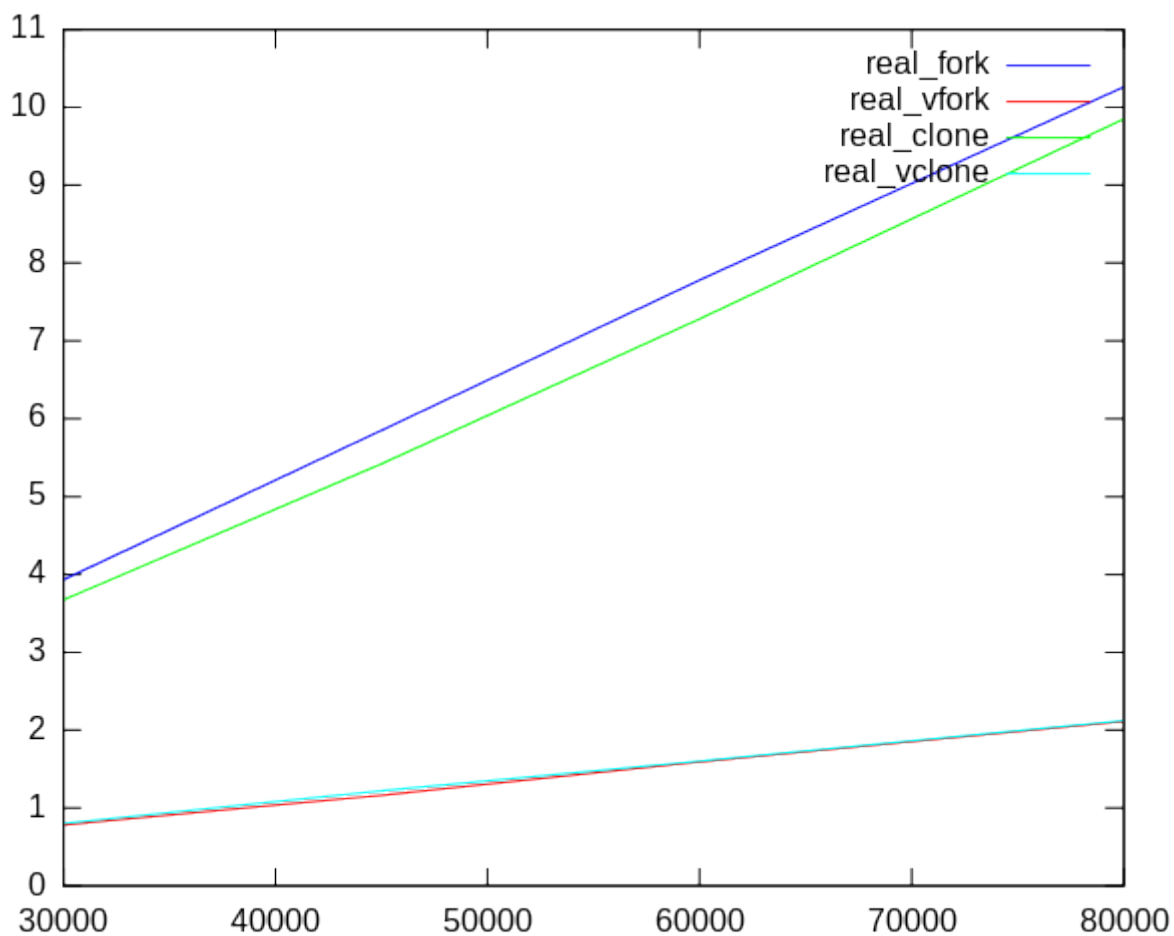
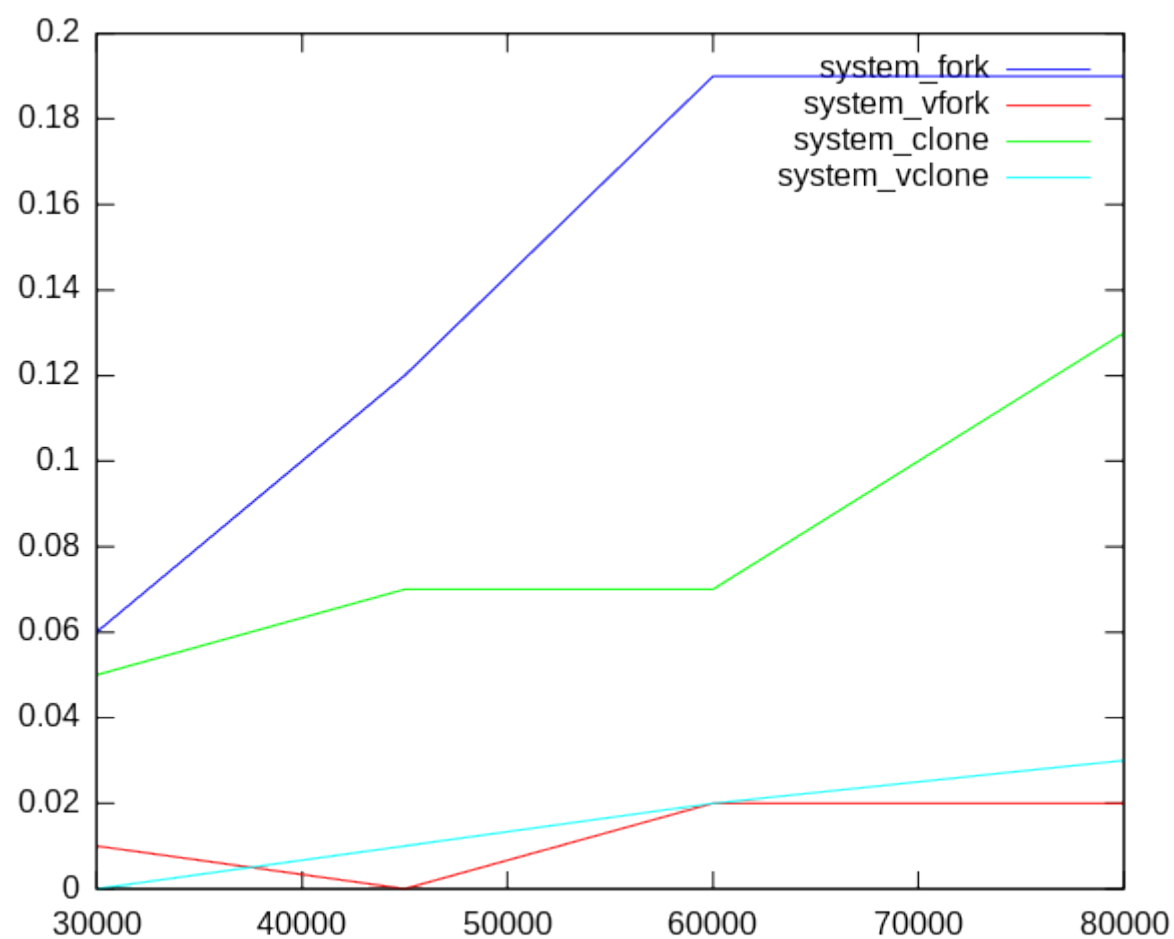


TYLKO PROCES MACIERZYSTY

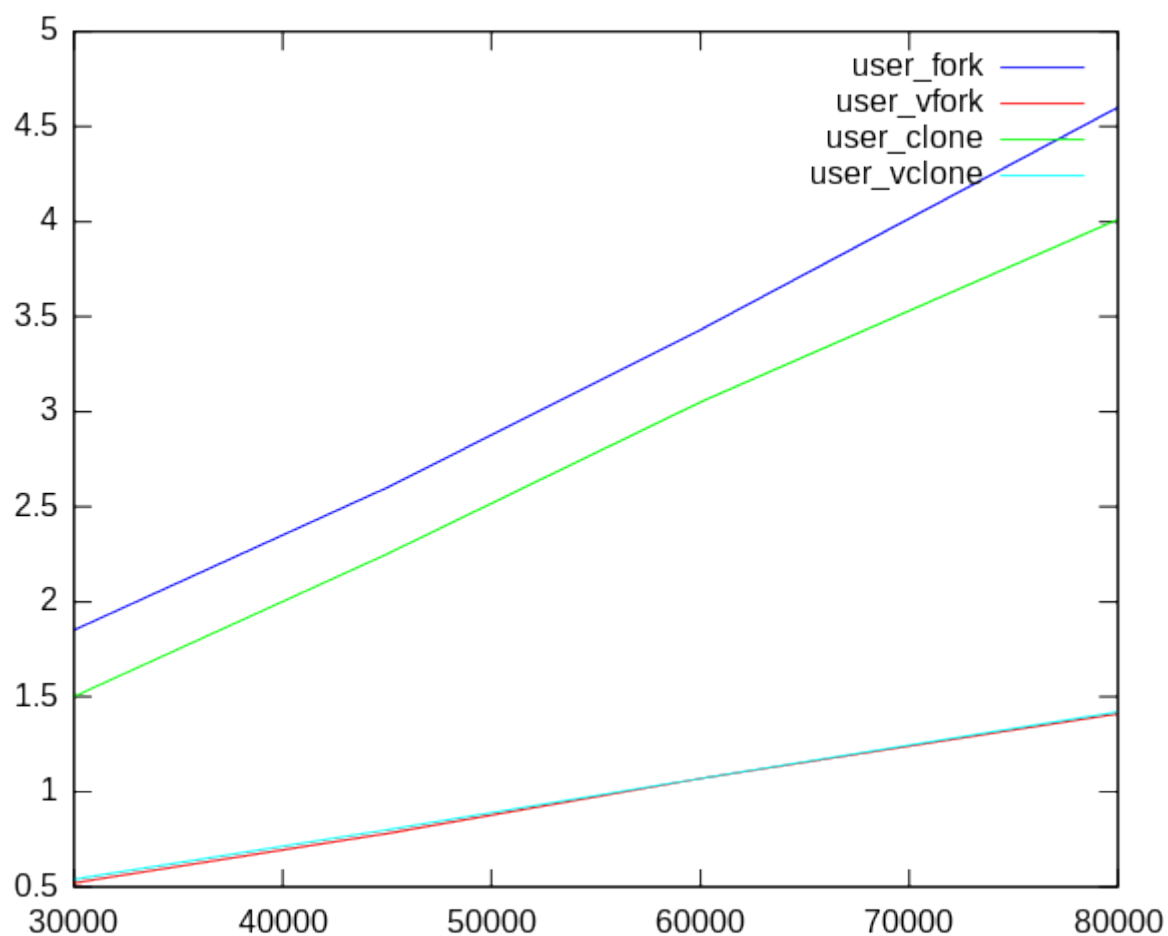
czas rzeczywisty



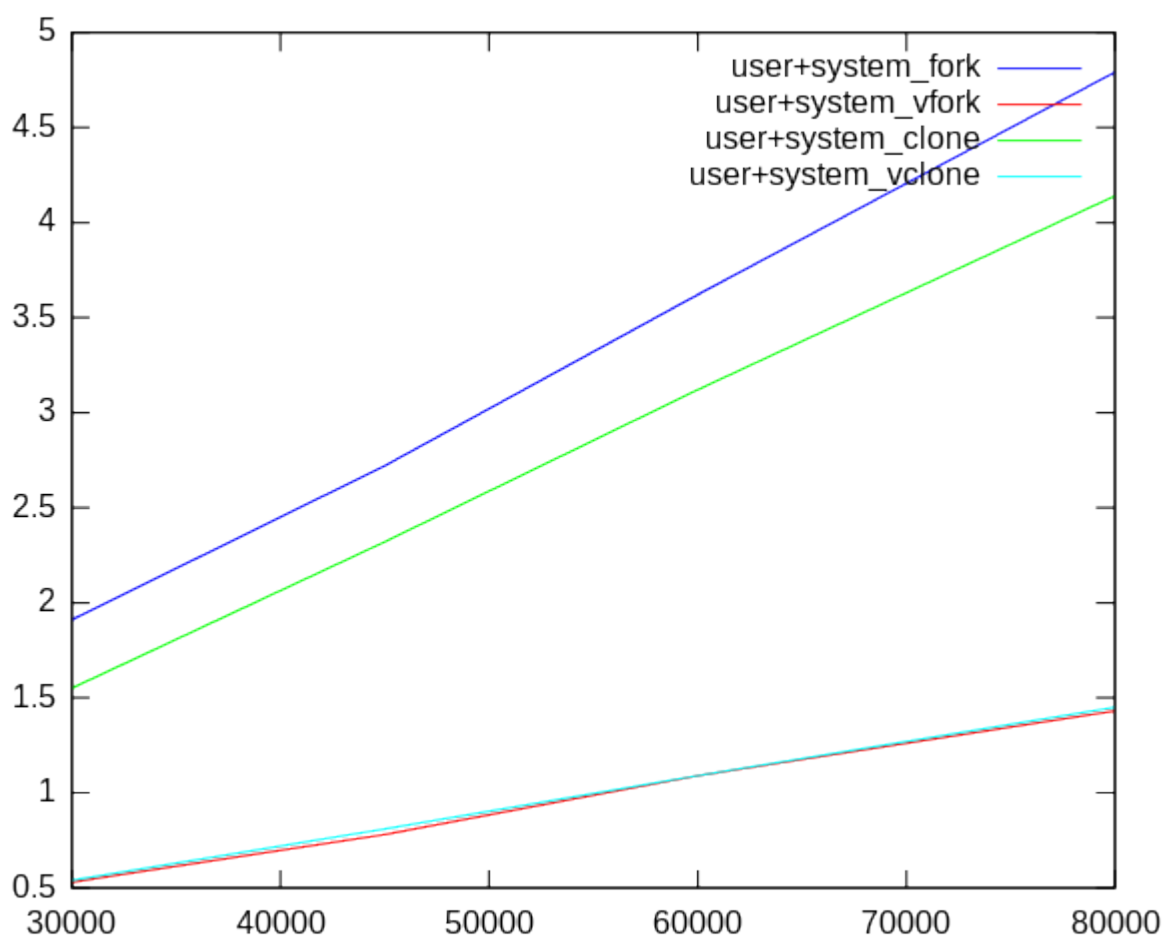
czas systemowy



czas użytkownika

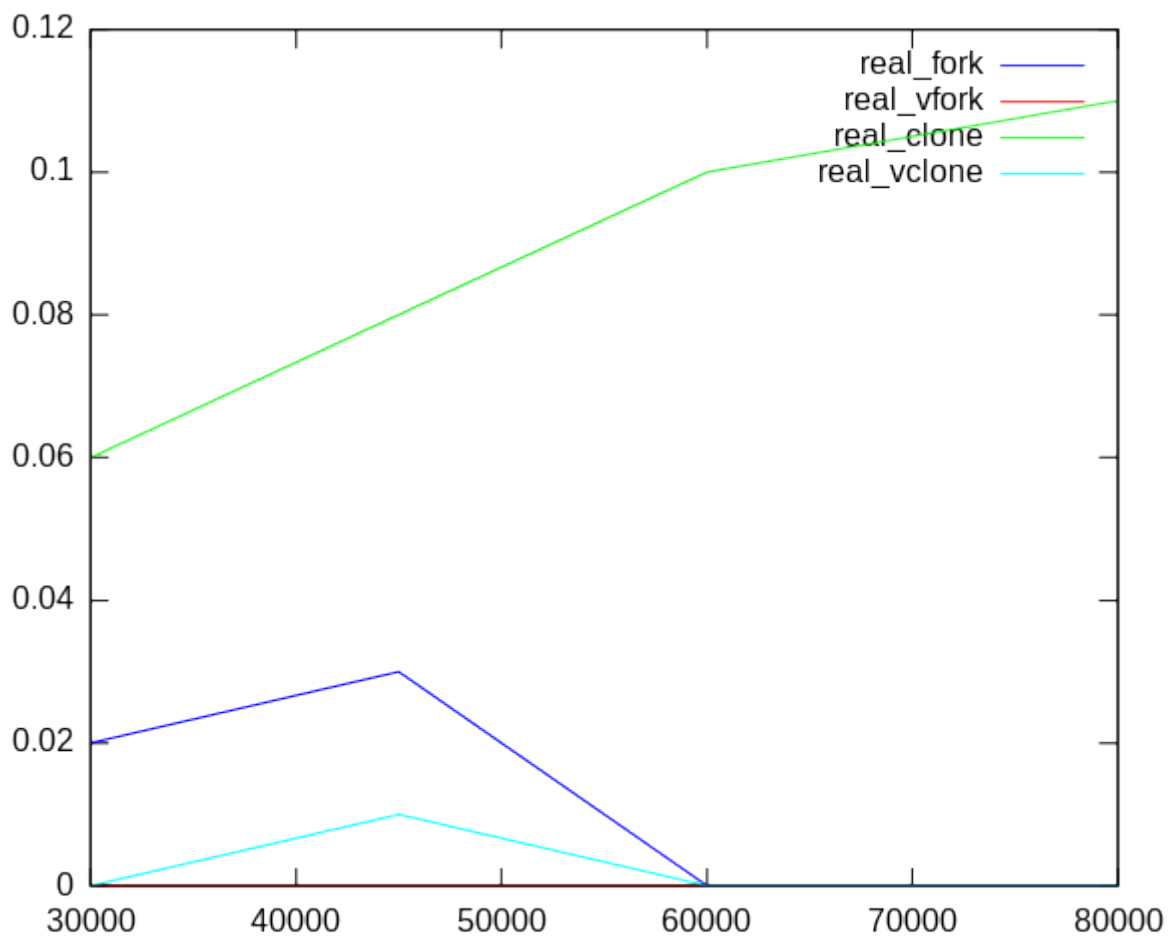


czas użytkownika + czas systemowy

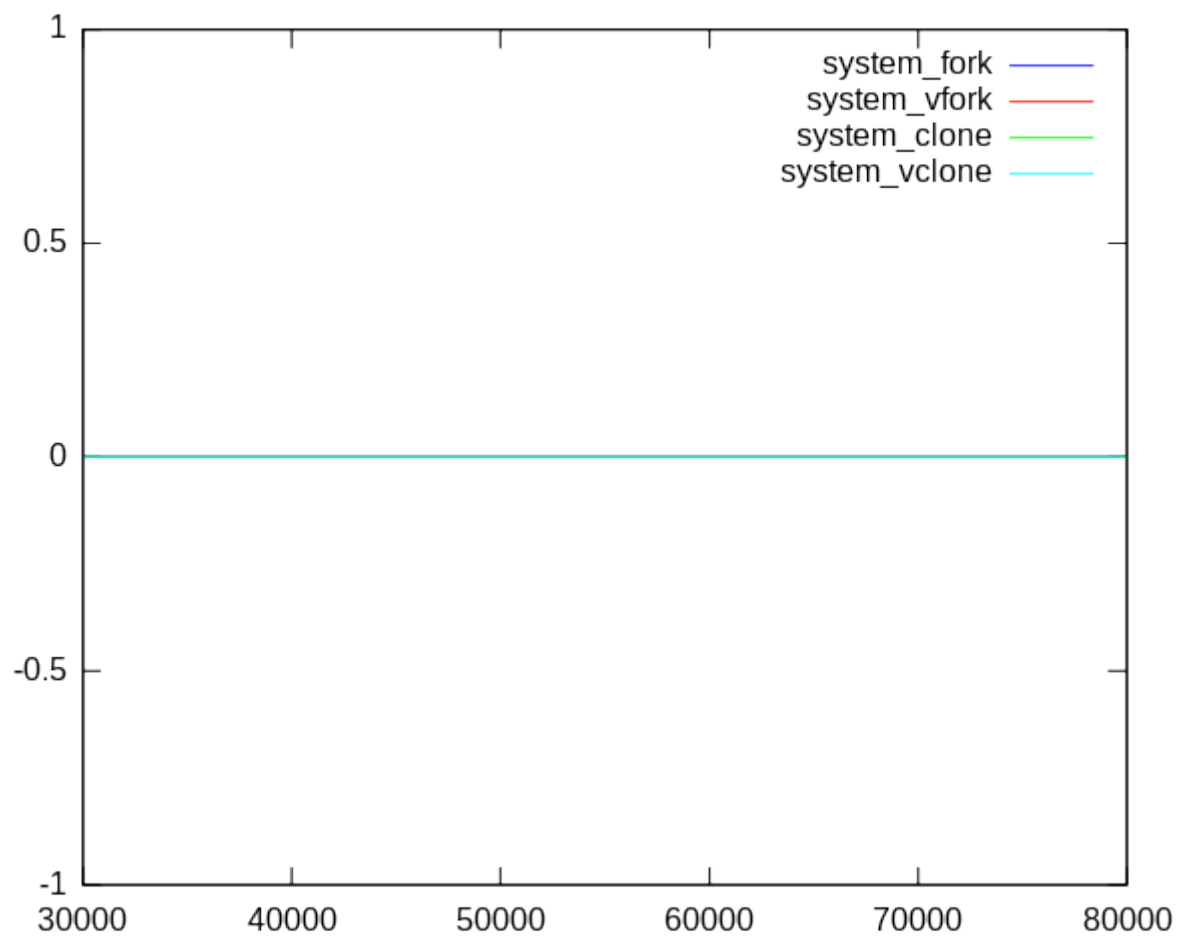


TYLKO PROCESY POTOMNE

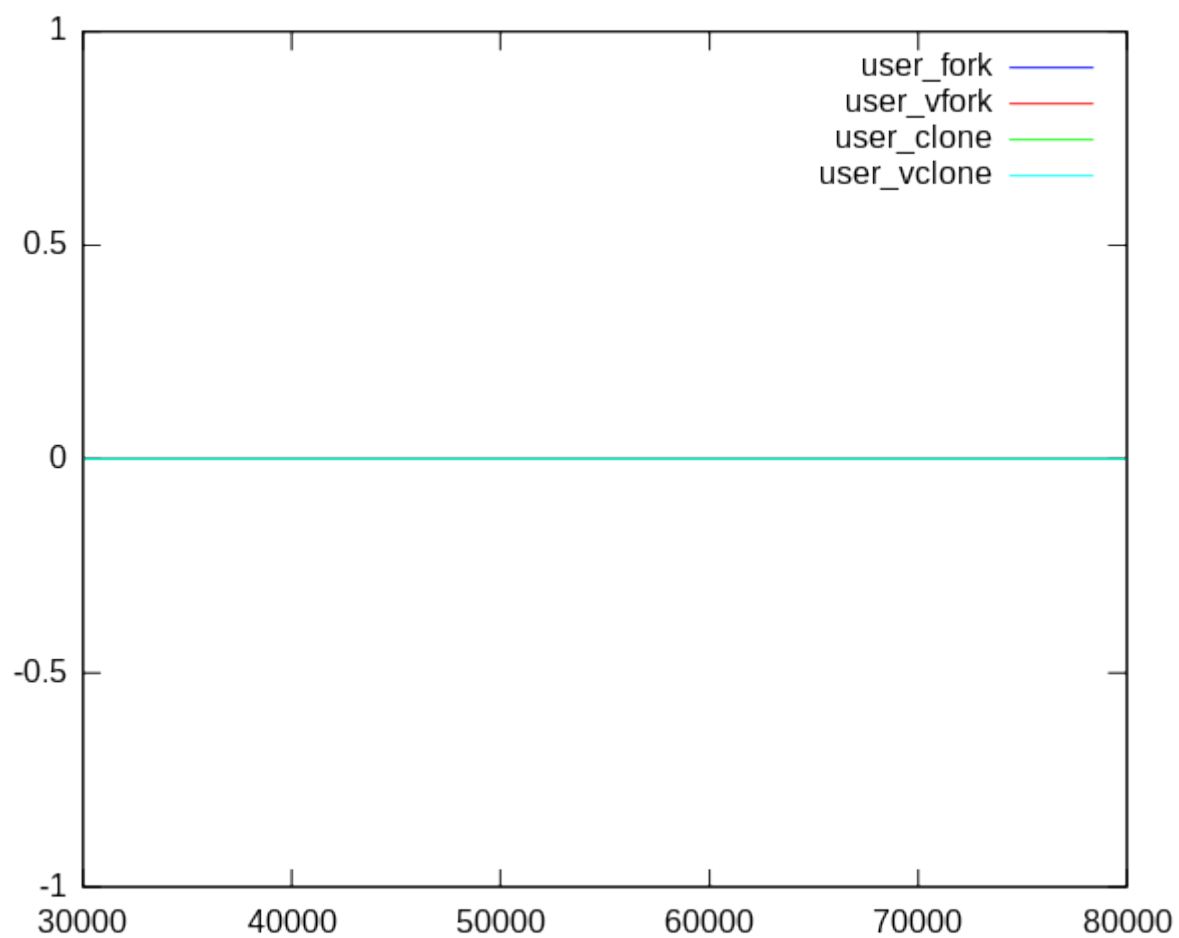
czas rzeczywisty



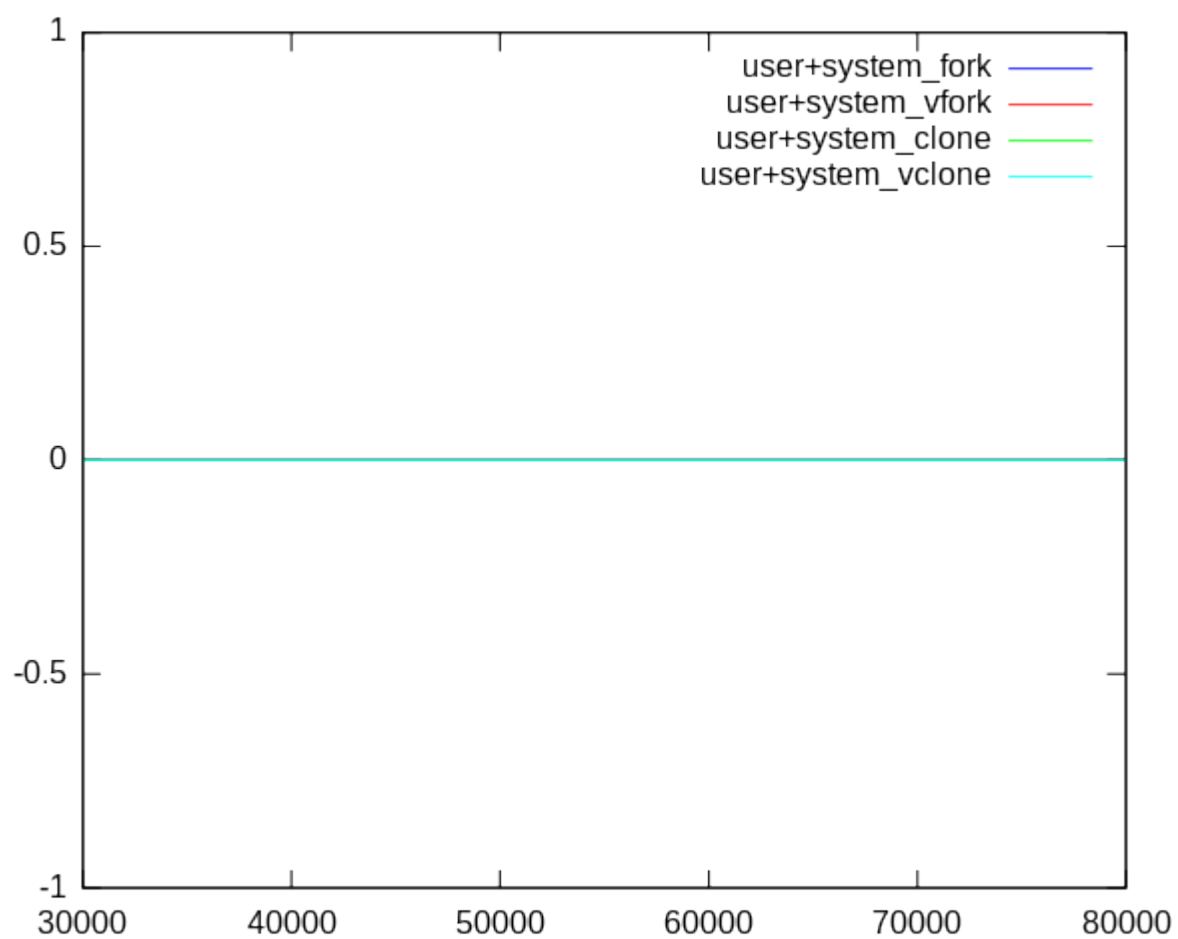
czas systemowy



czas użytkownika

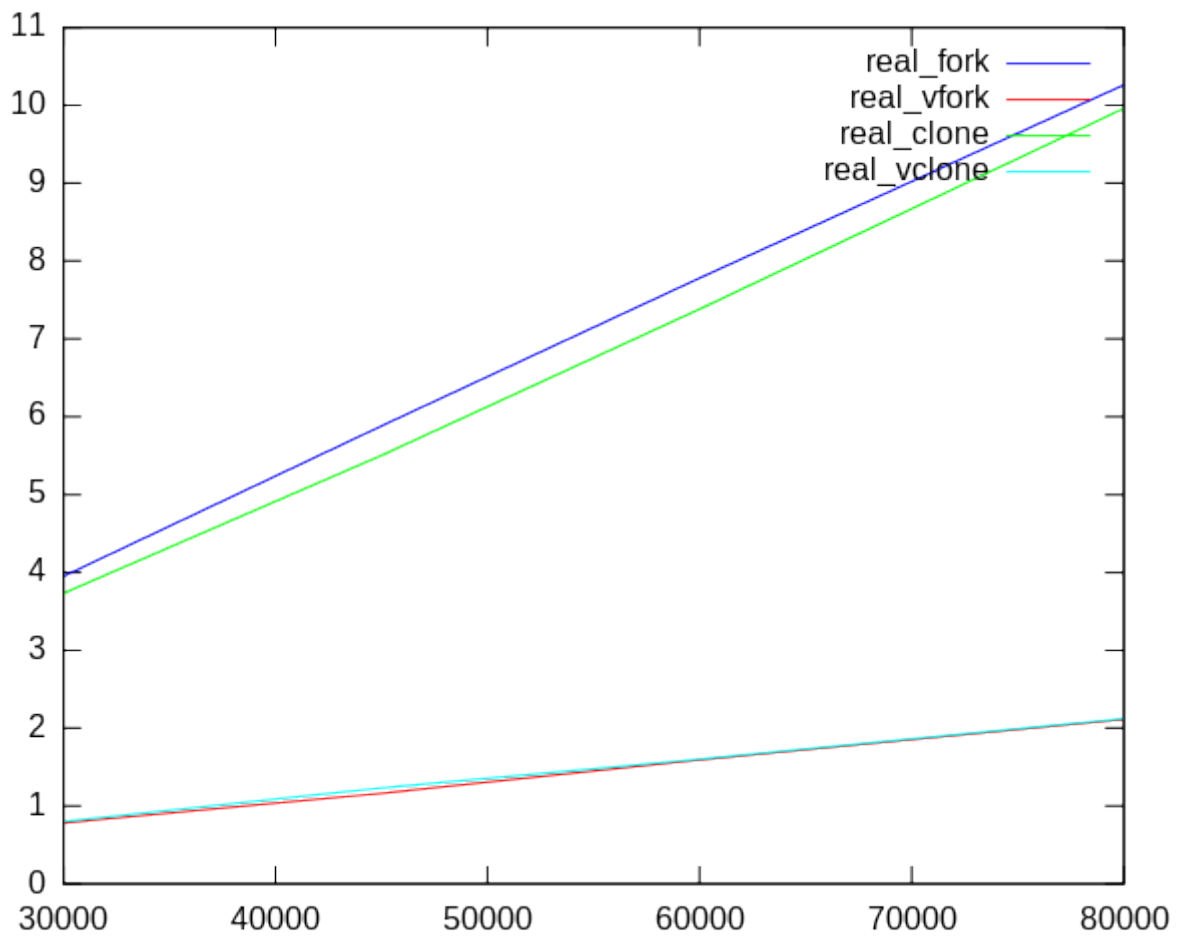


czas użytkownika + czas systemowy

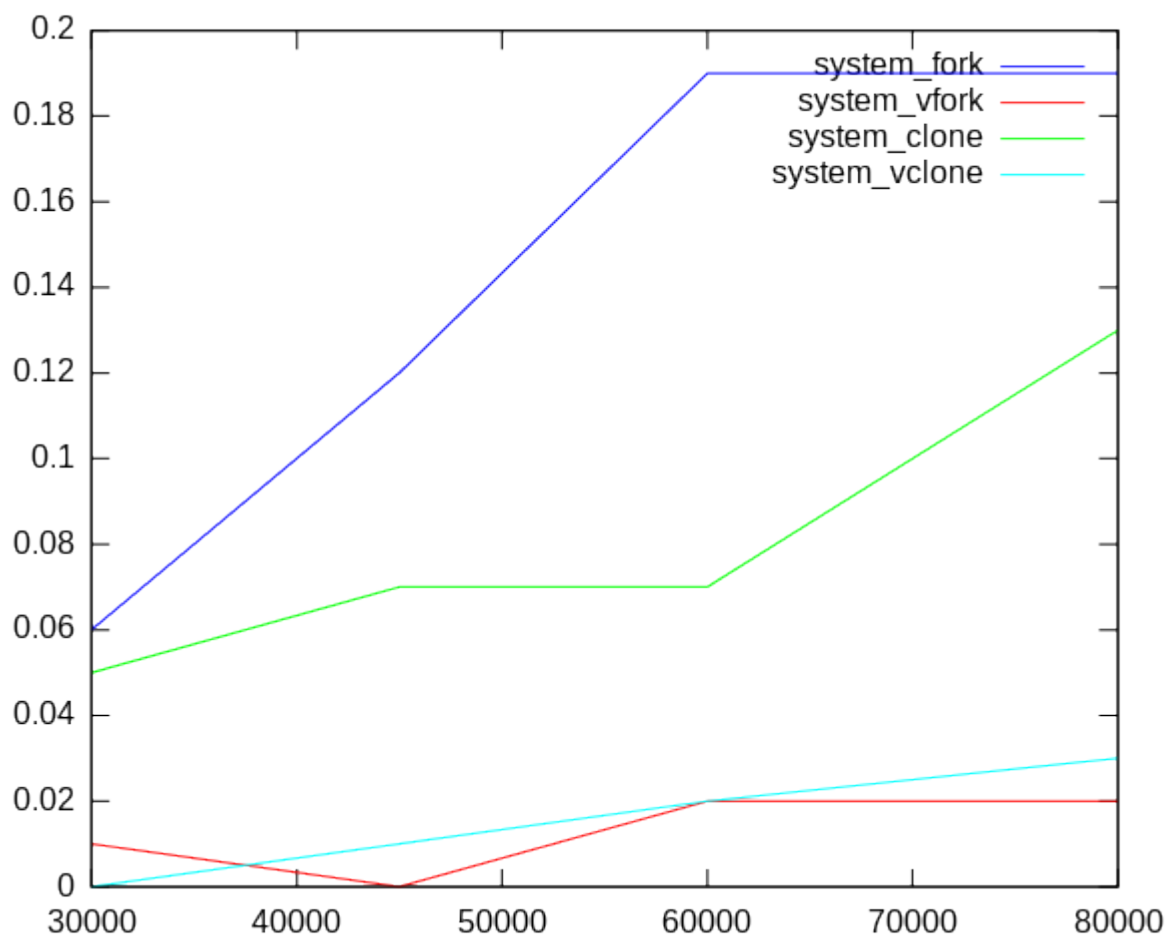


PROCESY POTOMNE I MACIERZYSTY W SUMIE

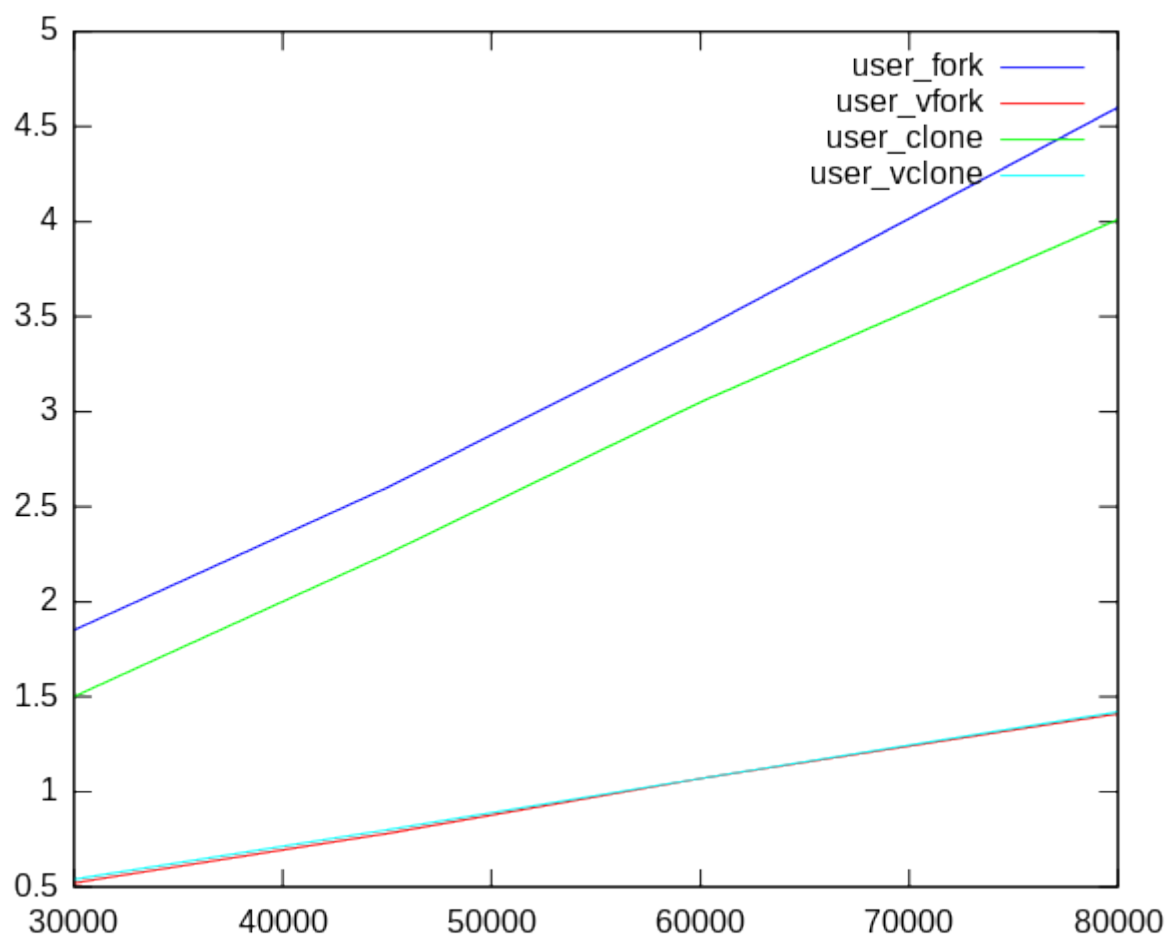
czas rzeczywisty



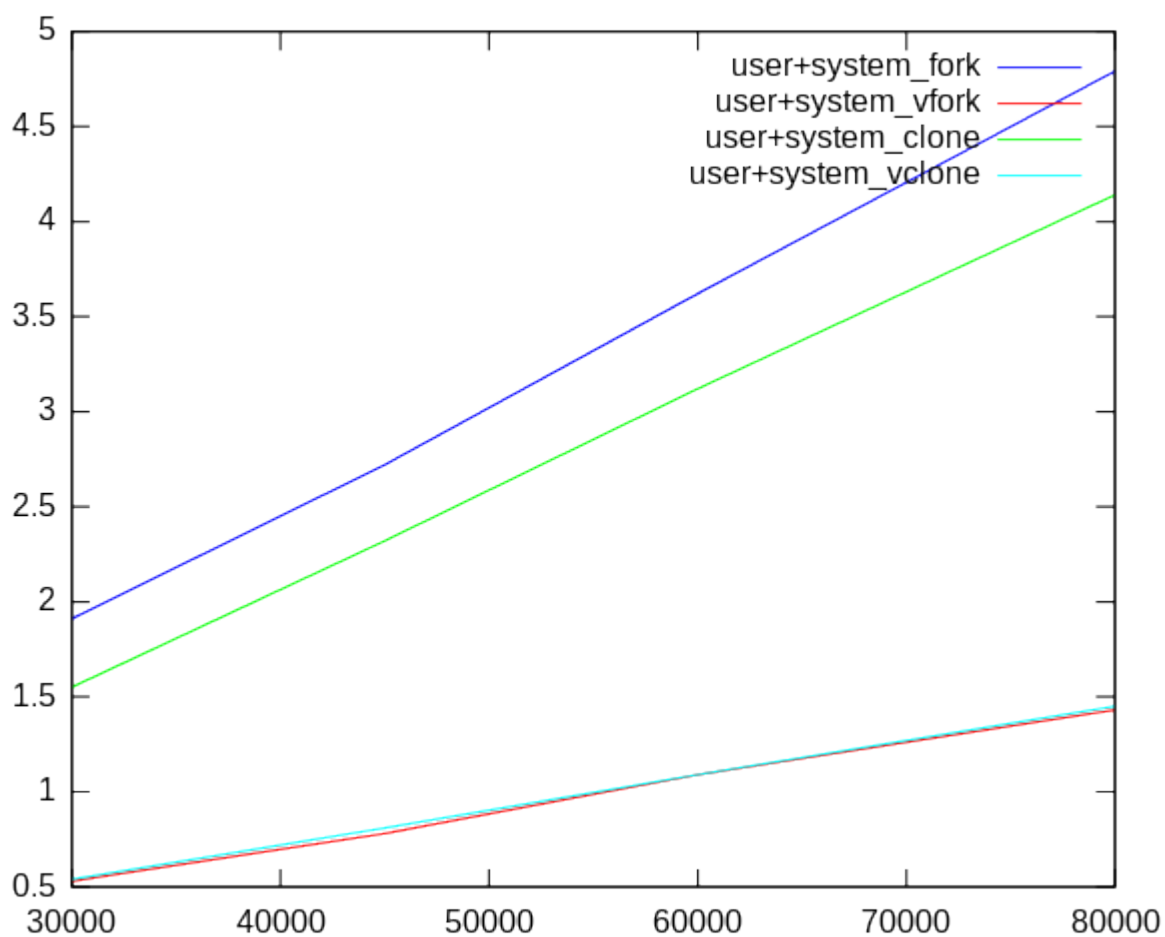
czas systemowy



czas użytkownika



czas użytkownika + czas systemowy



WNIOSKI

- „lekkie” forkowanie jest wyraźnie szybsze od zwykłego i pozwala dzielić pamięć (pozwala dzielić wspólny licznik);
- powielenie zachowania dzielenia pamięci w `clone()` daje podobny efekt;
- `clone()` jest trochę szybsze od odpowiadającego mu `fork/vfork`

(na nast. stronie wyniki pomiarów)

FORK:

ChildCount	30000	RealTimeSum	3.95	UserTimeSum	0.06	SystemTimeSum	1.85
	Sys+UsTimeSum	1.91	RealTimeChild	0.02	UserTimeChild	0.00	
	SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	3.93	
	UserTimeParent	0.06	SystemTimePar.	1.85	Sys+UsTimePar	1.91	
ChildCount	45000	RealTimeSum	5.88	UserTimeSum	0.12	SystemTimeSum	2.60
	Sys+UsTimeSum	2.72	RealTimeChild	0.03	UserTimeChild	0.00	
	SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	5.85	
	UserTimeParent	0.12	SystemTimePar.	2.60	Sys+UsTimePar	2.72	
ChildCount	60000	RealTimeSum	7.78	UserTimeSum	0.19	SystemTimeSum	3.43
	Sys+UsTimeSum	3.62	RealTimeChild	0.00	UserTimeChild	0.00	
	SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	7.78	
	UserTimeParent	0.19	SystemTimePar.	3.43	Sys+UsTimePar	3.62	
ChildCount	80000	RealTimeSum	10.26	UserTimeSum	0.19	SystemTimeSum	4.60
	Sys+UsTimeSum	4.79	RealTimeChild	0.00	UserTimeChild	0.00	
	SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	10.2	
6	UserTimeParent	0.19	SystemTimePar.	4.60	Sys+UsTimePar	4.79	

VFORK:

ChildCount	30000	RealTimeSum	0.78	UserTimeSum	0.01	SystemTimeSum	0.52
	Sys+UsTimeSum	0.53	RealTimeChild	0.00	UserTimeChild	0.00	
	SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	0.78	
	UserTimeParent	0.01	SystemTimePar.	0.52	Sys+UsTimePar	0.53	
ChildCount	45000	RealTimeSum	1.16	UserTimeSum	0.00	SystemTimeSum	0.78
	Sys+UsTimeSum	0.78	RealTimeChild	0.00	UserTimeChild	0.00	
	SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	1.16	
	UserTimeParent	0.00	SystemTimePar.	0.78	Sys+UsTimePar	0.78	
ChildCount	60000	RealTimeSum	1.59	UserTimeSum	0.02	SystemTimeSum	1.07
	Sys+UsTimeSum	1.09	RealTimeChild	0.00	UserTimeChild	0.00	
	SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	1.59	
	UserTimeParent	0.02	SystemTimePar.	1.07	Sys+UsTimePar	1.09	
ChildCount	80000	RealTimeSum	2.11	UserTimeSum	0.02	SystemTimeSum	1.41
	Sys+UsTimeSum	1.43	RealTimeChild	0.00	UserTimeChild	0.00	
	SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	2.11	
	UserTimeParent	0.02	SystemTimePar.	1.41	Sys+UsTimePar	1.43	

CLONE:

ChildCount	30000	RealTimeSum	3.73	UserTimeSum	0.05	SystemTimeSum	1.50
	Sys+UsTimeSum	1.55	RealTimeChild	0.06	UserTimeChild	0.00	
	SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	3.67	
	UserTimeParent	0.05	SystemTimePar.	1.50	Sys+UsTimePar	1.55	
ChildCount	45000	RealTimeSum	5.50	UserTimeSum	0.07	SystemTimeSum	2.25
	Sys+UsTimeSum	2.32	RealTimeChild	0.08	UserTimeChild	0.00	
	SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	5.42	
	UserTimeParent	0.07	SystemTimePar.	2.25	Sys+UsTimePar	2.32	
ChildCount	60000	RealTimeSum	7.38	UserTimeSum	0.07	SystemTimeSum	3.05
	Sys+UsTimeSum	3.12	RealTimeChild	0.10	UserTimeChild	0.00	

SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	7.28
UserTimeParent	0.07	SystemTimePar.	3.05	Sys+UsTimePar	3.12
ChildCount 80000	RealTimeSum 9.96	UserTimeSum 0.13	SystemTimeSum	4.01	
Sys+UsTimeSum	4.14	RealTimeChild	0.11	UserTimeChild	0.00
SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	9.85
UserTimeParent	0.13	SystemTimePar.	4.01	Sys+UsTimePar	4.14

CLONE (vfork)

ChildCount 30000	RealTimeSum 0.80	UserTimeSum 0.00	SystemTimeSum	0.54	
Sys+UsTimeSum	0.54	RealTimeChild	0.00	UserTimeChild	0.00
SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	0.80
UserTimeParent	0.00	SystemTimePar.	0.54	Sys+UsTimePar	0.54
ChildCount 45000	RealTimeSum 1.23	UserTimeSum 0.01	SystemTimeSum	0.80	
Sys+UsTimeSum	0.81	RealTimeChild	0.01	UserTimeChild	0.00
SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	1.22
UserTimeParent	0.01	SystemTimePar.	0.80	Sys+UsTimePar	0.81
ChildCount 60000	RealTimeSum 1.60	UserTimeSum 0.02	SystemTimeSum	1.07	
Sys+UsTimeSum	1.09	RealTimeChild	0.00	UserTimeChild	0.00
SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	1.60
UserTimeParent	0.02	SystemTimePar.	1.07	Sys+UsTimePar	1.09
ChildCount 80000	RealTimeSum 2.12	UserTimeSum 0.03	SystemTimeSum	1.42	
Sys+UsTimeSum	1.45	RealTimeChild	0.00	UserTimeChild	0.00
SystemTimeChild	0.00	Sys+UsTimeCh	0.00	RealTimeParent	2.12
UserTimeParent	0.03	SystemTimePar.	1.42	Sys+UsTimePar	1.45