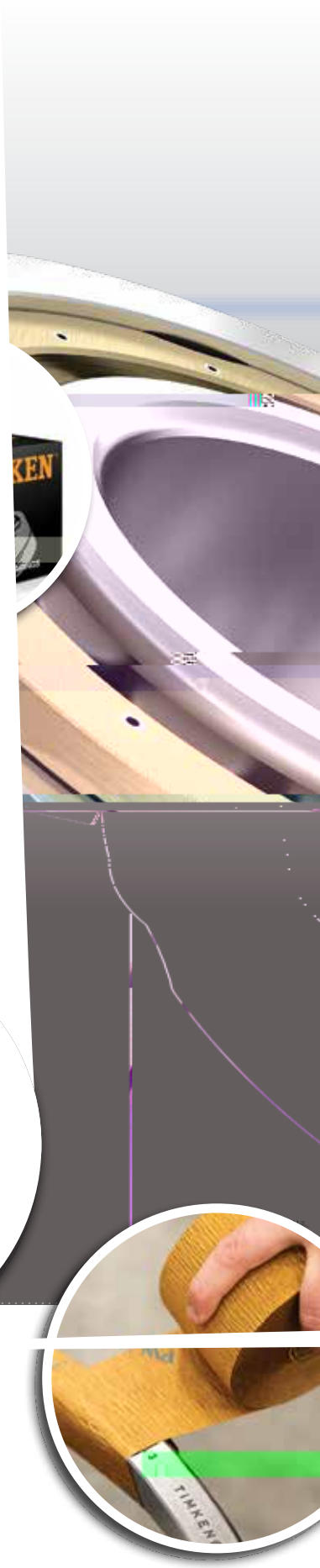
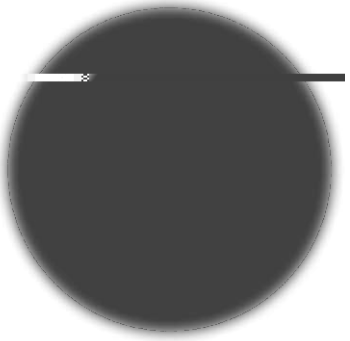
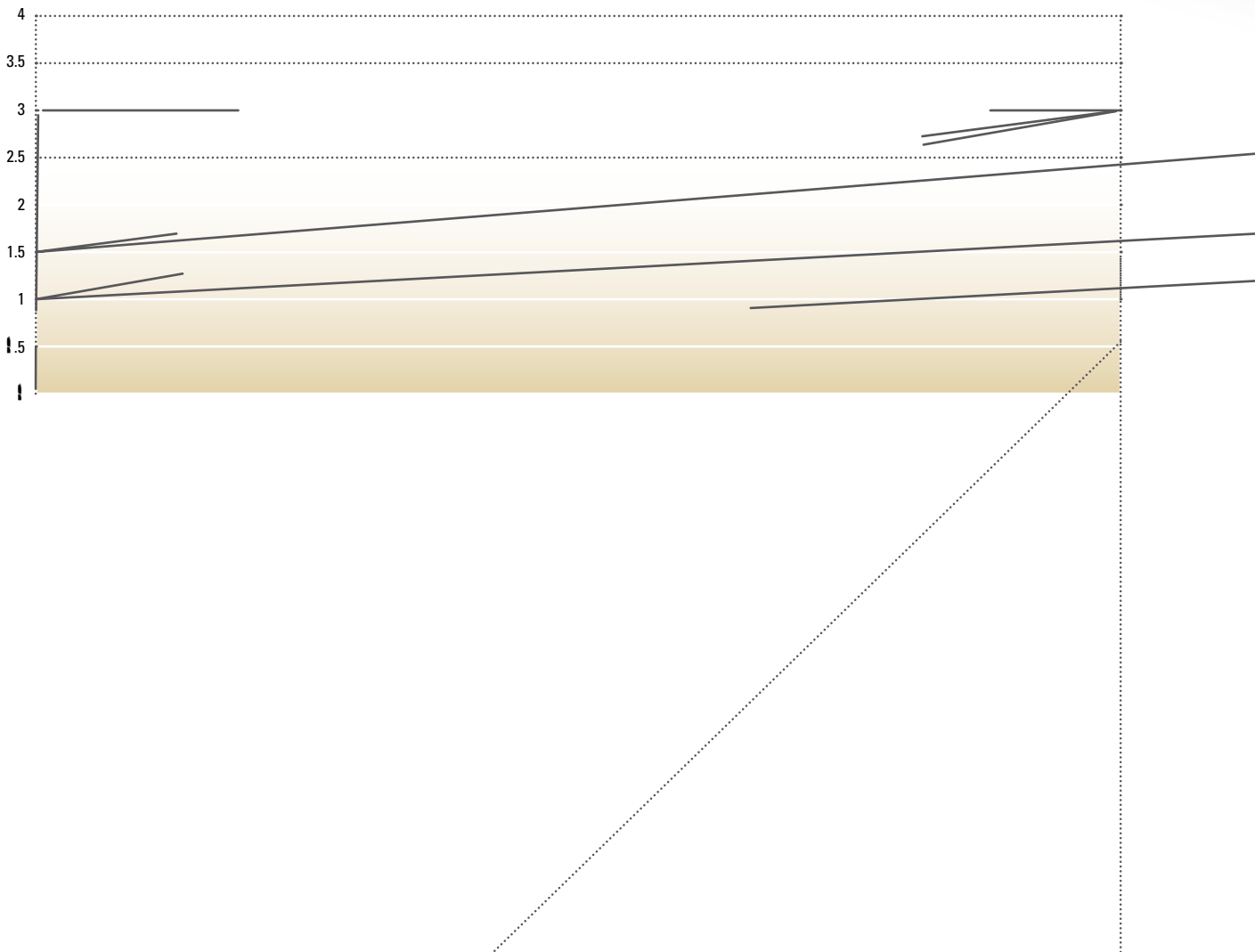

TIMKEN



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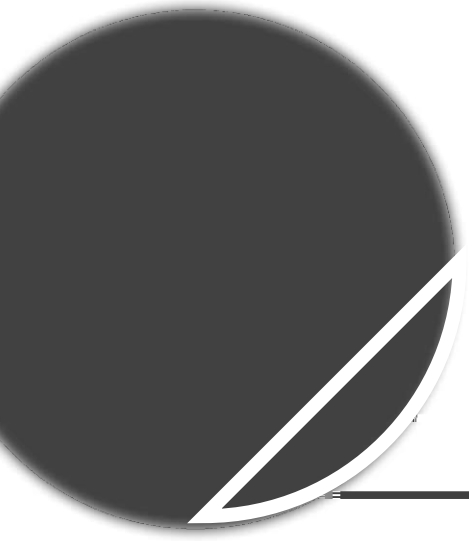
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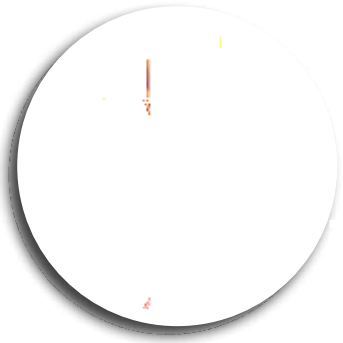
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Timken® EMA

EMA



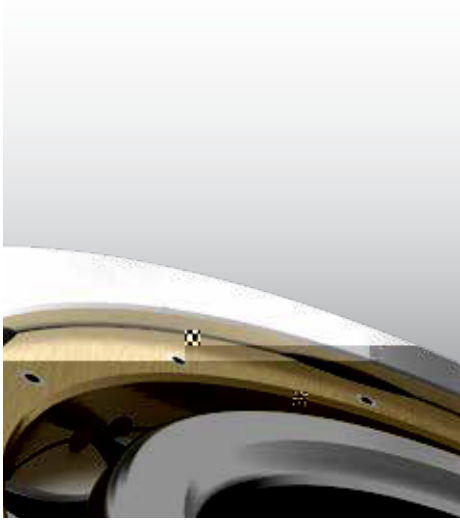


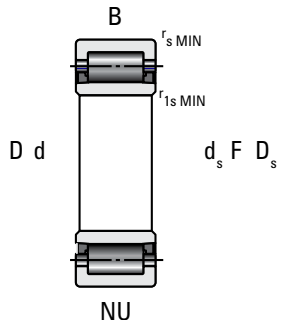
EMA

λ lambda

1.5

EMA





NU

NJ

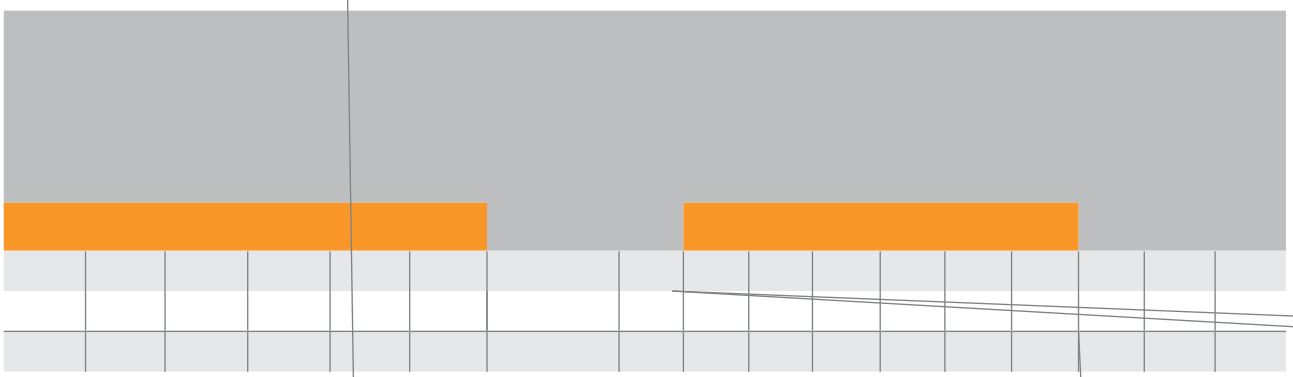
NJ

30%

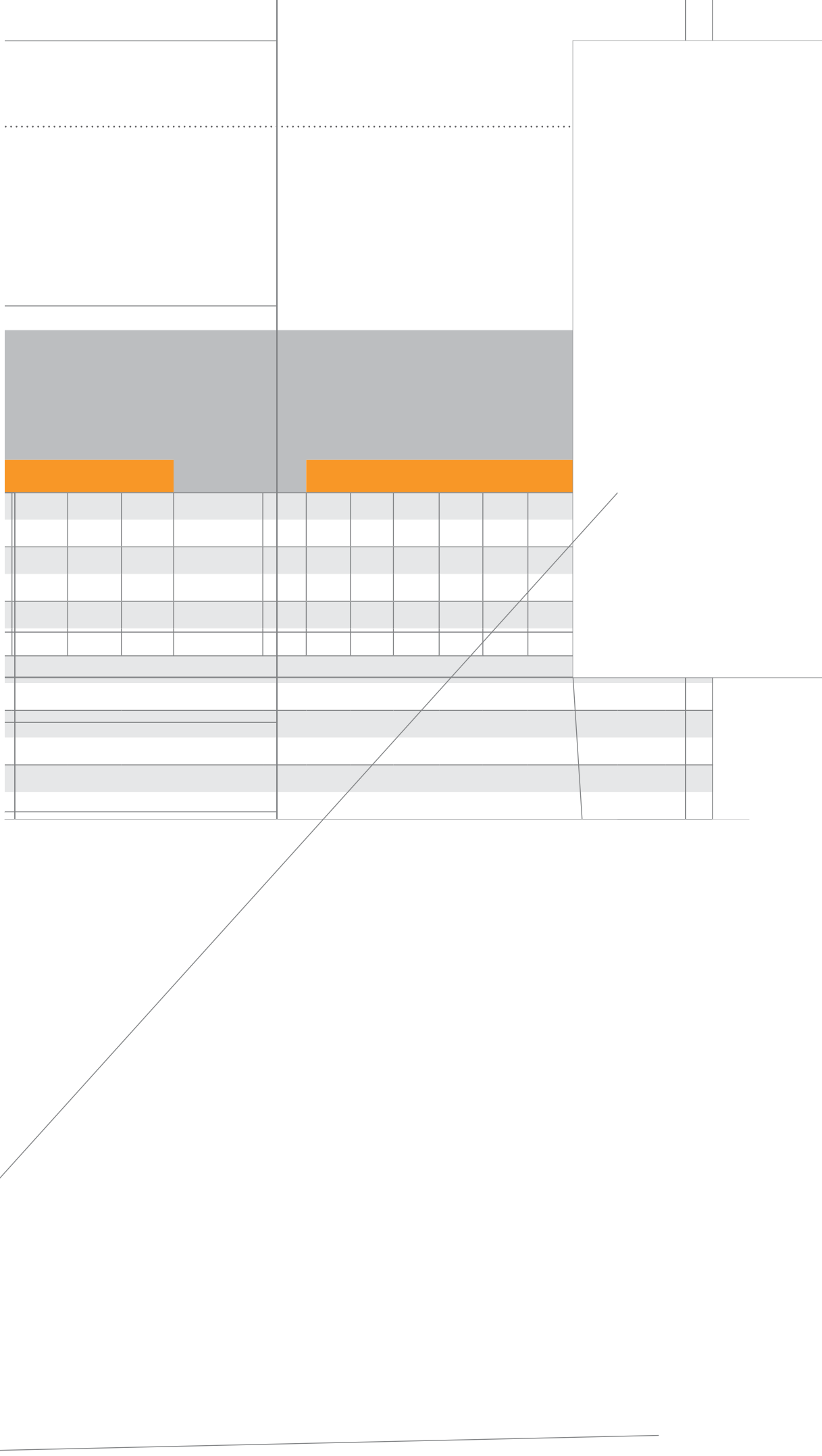
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NUP

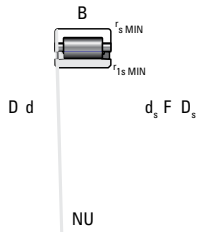
NUP











				(1)		(2)								Cg (3)		
d	D	B	F/E	C_1	C_l			$r_{s\ MIN}$	$r_{1s\ MIN}$	ds	Ds	s				
			DUR/DOR													
mm inch	mm inch	mm inch	mm inch	kN lbf.	kN lbf.			mm inch	mm inch	mm inch	mm inch	mm inch	kg. lb.		RPM	RPM
190.000	340.000	55.000	230.000	777	960	NU238EMA	NU	4.0	4.0	224.3	306.0	4.5	23.50	.132	17	15
7.48 3	13.3858	2.1654	.551	175	216			.16	.16	8.83	12.5	.18	51.7			
190.000	340.000	55.000	230.000	777	960	NJ238EMA	NJ	4.0	4.0	224.3	306.0	4.5	24.00	.132	17	15
7.48 3	13.3858	2.1654	.551	175	216			.16	.16	8.83	12.5	.18	52.8			
190.000	340.000	92.000	228.000	1250	1680	NU2238EMA	NU	4.0	4.0	218.0	308.0	6.1	39.00	.14	13	12
7.48 3	13.3858	3.622	8. 764	281	377			.16	.16	8.58	12.13	.24	85.8			
190.000	400.000	78.000	245.000	1280	1470	NU338EMA	NU	5.0	5.0	237.0	353.0	6.0	50.00	.145	14	13
7.48 3	15.748	3. 7	.6457	287	331			.2	.2	.33	13.	.24	11 .11			
190.000	400.000	132.000	240.000	2060	2500	NU2338EMA	NU	5.0	5.0	227.6	360.0	9.8	82.50	.161	11	6
7.48 3	15.748	5.1 6	.4488	464	561			.2	.2	8. 6	14.17	.3	181.5			
200.000	310.000	51.000	229.000	445	606	NU1 4 MA	NU	2.1	2.1	223.0	281.0	8.6	14.60	.122	23	1
7.874	12.2 47	2. 7	.157	1	136			.8	.8	8.78	11.6	.34	23.5			
200.000	360.000	58.000	243.000	870	1090	NU24 EMA	NU	4.0	4.0	236.8	323.0	4.7	27.40	.137	16	14
7.874	14.1732	2.2835	.566	1 6	245			.16	.16	.32	12.72	.1	6 .28			
200.000	360.000	98.000	241.000	1410	1900	NU224 EMA	NU	4.0	4.0	231.5	325.0	7.0	44.90	.156	12	11
7.874	14.1732	3.8583	.4882	316	428			.16	.16	.11	12.8	.28	8.			
200.000	420.000	80.000	258.000	1360	1580	NU34 EMA	NU	5.0	5.0	249.9	370.0	7.0	57.50	.15	13	12
7.874	16.5354	3.14 6	1 .1575	3 6	354			.2	.2	.84	14.57	.28	126.5			
200.000	420.000	138.000	253.000	2230	2730	NU234 EMA	NU	5.0	5.0	240.2	377.0	10.0	96.50	.167	1	
7.874	16.5354	5.4331	. 6 6	5 1	613			.2	.2	.46	14.84	.3	212.3			
220.000	340.000	56.000	250.000	565	765	NU1 44MA	NU	3.0	3.0	243.8	310.0	8.4	18.50	.132	2	17
8.6614	13.3858	2.2 47	.8425	127	172			.12	.12	.6	12.2	.33	4 .7			
220.000	340.000	56.000	250.000	565	765	NJ1 44MA	NJ	3.0	3.0	243.8	310.0	8.4	19.10	.132	2	17
8.6614	13.3858	2.2 47	.8425	127	172			.12	.12	.6	12.2	.33	42.2			
220.000	400.000	65.000	268.000	1040	1290	NU244EMA	NU	4.0	4.0	260.0	358.0	4.0	38.00	.148	14	12
8.6614	15.748	2.55 1	1 .5512	233	2			.16	.16	1 .24	14.	.16	83.6			
220.000	400.000	65.000	268.000	1040	1290	NJ244EMA	NJ	4.0	4.0	260.0	358.0	4.0	38.30	.148	14	12
8.6614	15.748	2.55 1	1 .5512	233	2			.16	.16	1 .24	14.	.16	84.26			
220.000	400.000	108.000	259.000	1820	2370	NU2244EMA	NU	4.0	4.0	250.0	363.0	7.4	62.60	.165	1	2
8.6614	15.748	4.252	1 .1 6	4	533			.16	.16	.84	14.2	.2	138.			

(1) ISO 1×10^6 L_{10}

(2) N NF NP NJF

(3) a3l