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	10	20	30	40	50	60	70	80	90	100	110	120	
Helitron	MPRLRSASQSQSRKLRNRSNR--DRNLNGLNLEIFIEIENRELVIDAHPFVPEVRNQELTEGPNQETAMQVSGVQGEQAQVPGXVNEAAGSDGNAQNKQVSVRQSVRLRNQHVENIEERV												
Muller-A	MPRLRSASQSQSRKLR-----\DRNLNLENVFEIENREXX												
	130	140	150	160	170	180	190	200	210	220	230	240	
Helitron	ELRTRGQGVANTERRFKRRRSQRYRATEQAQNTAEHVLRRDTSRIREEQVADTVRRSRRRQDSXYRAREQEQNTEHIVRRDQAIRHEEQVADTVRRSRRRQDPDYRTREQQNTVEHIVRRT												
Muller-A	XXXXXXXXQVANTVRRSRRRQDLDYRAREQEQNTVEHIVRRTDAQIRHEEQVANTVRRSRRRQDLDYRAREQEQNTVEHIVRRTDAQIRHEEQVANTVRRSRRRQDLDYRAREQEQNTVEHIVRRT												
	250	260	270	280	290	300	310	320	330	340	350	360	370
Helitron	DARIRHEEQVADTVRRSRRRQDPDYRAREQEQNTVEHIVRRTDAQIRHEEQVADTVRRSRRRQDSDYRTREQERNTERRQVRLNERRRML--EREQDVRVRVQESLVDVRRRISRARDTLARQA												
Muller-A	DAQIRHEEQVANTVRRSRRRQDLDYRTREQEQNTVEHIVRRTDAQIRHEEQVANTVRRSRRRQDLDYRTREQERNTERRQVRLNERRRML/EREQDVRVRVQESLVDVRRRISRARDTLARQA												
	380	390	400	410	420	430	440	450	460	470	480	490	
Helitron	ARAAARQLEIDAARTASQVRSYRSDDSNRVEQNLRNASRMQOERANISQEDRAQIEPRILRSGLEALKVVMNRNKLGPQVCLCKGLWFKQIQICKIPRVLLESDFSGEIFALESLEFFPS												
Muller-A	ARAAARQLEIDAARTASQVRSYRSDDSNRVEQNLRNASRMQOERANISQEDRAQIEPRILRSGLEALKVVMNRNKLGPQVCLCKGLWFKQIQICKIPRVLLESDFSGEIFALESLEFFPS												
	500	510	520	530	540	550	560	570	580	590	600	610	620
Helitron	DCPTLFCRTRCHSNIKKRIPKLPFFNELDFPMLPDLCKGLTPLEERLISPRLPFMIKIPILGGRGNAIKGAVNVNPIVSVDIVKELPRAFHAQVIQLHLKRRKEYLHAFMAETIRPSKIFEA												
Muller-A	DCPTLFCRTRCHSNLKKRIPKLPFFNELDFPMLPDLCKGLTPLEERLISPRLPFMIKIPILGGRGNAIKGAVNVNPIVSVDIVKELPRAFHAQVIQLHLKRRKEYLHAFMAETIRPSKIFEA												
	630	640	650	660	670	680	690	700	710	720	730	740	
Helitron	LRYLVTDLTKHNNVVNEQISGFTSDIVPFAVQADAFLESMQNRDNDVTEPAHPDEVEAEELMPGGQTLLENNIPFDDRIKIAPGQGRPLDMLDIDSELSFPTIYAGVKRQSSQ												
Muller-A	LRYLVTDLTKHNNVVNXX-----												
	750	760	770	780	790	800	810	820	830	840	850	860	870
Helitron	SFTTIVRSELNRVDRRCRTDKLFFNYKKLELIRNINISICLKRKSTSSAVTAANLNFIFGLINHDGVRVLDIRSSPAHWEDEKKVMAMRFGOLFPTFFITLSAETRWPELLVLLKK												
Muller-A	ALMLII-----NTSVCTRS-----VFNNVNS-----RMGV*LVF-----SANESK-----												
	880	890	900	910	920	930	940	950	960	970	980	990	
Helitron	NVDREIIEEEMANLPYTEKERLIRADPVCARYFD--YRREILKVMNRREGIFGENFVIKYWRVFGQRGSRPHLGHMFVKDAPAVLSTESISTVIAFNKHITVDVDSELAPYVEYQKH												
Muller-A	-----SIQEREKSIDPV-----EY*G/YNY--LQLL-----VLEYWA*ERCSG-----EFCIMVRYVN-----TKSE-----												
	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090	1100	1110	1120
Helitron	RHKMCLCKKANKSGKVKCFRGIYPMPPTTEILSPLPEETPNLDFHQNFKKIQDLNDSQSSDMIDLHISFENFLSHEQVSLNYEDKYAISGSKKPHIFLKRFAEIVCNAYKNKHSIQMR												
Muller-A	--RRLSILR-----GSFE-----YLFK-----GV*PNNIL*MQR												
	1130	1140	1150	1160	1170	1180	1190	1200	1210	1220	1230	1240	
Helitron	AMNDIQYLDPYACCSYIINYNKTRQGISKLMREAAKEVGGNYTRQKLIHQHGFISGTEISAQEAIVCCVCLGIPLSGTSNKCQVNTFPPEQRVRLMKSITLQNMHQESTDIFVKGLLERY												
Muller-A	AMNDIQYLDPYACCSYIINYNKTRQGISKLMREAAKEVGGNYTRQKLIHQHGFISGTEISAQEAIVCCVCLGIPLSGTSNKCQVNTFPPEHRVRLMKSITLQNMHQESTDIFVKGLLERY												
	1250	1260	1270	1280	1290	1300	1310	1320	1330	1340	1350	1360	1370
Helitron	EQRPTELEGLCLADFAANYEFSKSGKRCQNRDDEEENEAEQVEVFIPLRDNBSGFIERETKPSILKMYRNFNI--NTRSNNYFRALAMLFPWRDEEKDLSVNCEDLYNNQHLVNSNFKFNAL												
Muller-A	EQRPTELEGLCLADFAANYEFFSAKRCQNRDDEEENEAEQVEVFIPLRDNBSGFIERETKPSILKY-----NTRSNNYFRALAMLFPWRDEEKDLSVNCEDLYNNQHLVNSNFKFNAL												
	1380	1390	1400	1410	1420	1430	1440	1450	1460	1470	1480	1490	
Helitron	GDLEDALRRAMEEENREEGEEVDEAIEAEFRALAIPEISSQINVLNLDQAADQDRSIRLIK--LPPIVSLMILANLIRSLNLKQTYLTHVLHNVRNKAVFVFGGGVGVKSRTSITIFQT												
Muller-A	GDLEDALRRAMEEENREEGEEVDEAIEAEFRALAIPEISSQINVLNLDQAADQDRSIRLIK/LPPIVSLMILANLIRSLNLKQ-----LHNVNRKNVNFVFGGGVGVKSRTSITIFQT												
	1500	1510	1520	1530	1540	1550	1560	1570	1580	1590	1600	1610	1620
Helitron	ISQEFNRRPGSNPETVKVLLCAPTKAAGIGGATLHSMFSLPLNQSNHAFKQGLPDLNLTLSRFDLKLILIDEISMVGEKMFSLDMRLKQIFSRPSPFPGGISVIVFGDLRQLCPVGDWRMI												
Muller-A	ISQEFNRRPGSNPETVKVLLCAPTKAAGIGGATLHSMFSLPLNQSNHAFKQGLPDLNLTLSRFDLKLILIDEISMVGEKMFSLDMRLKQIFSRPSPFPGGISVIVFGDLRQLCPVGDWRMI												
	1630	1640	1650	1660	1670	1680	1690	1700	1710	1720	1730	1740	
Helitron	FKSSSGAHNPYSIAVGSLLWDGFKFFELTEIMRQRDDOPFATALNMMASAVMTSEDIQLLRDRIVHGSEAPDAIHFLYSNSETDKYNKEKLSIMTAEYTSIALDSIKAHEHNPDKTKYLDV												
Muller-A	FKSSSGAHNPYSIAVGSLLWDGFKFFELTEIMRQRDDOPFATALNMMASAVMTSENIQLLRDRIVHGSEAPDAIHFLYSNSETDKYNKEKLSIMTAEYTSIALDSIKAHEHNPDKTKYLDV												
	1750	1760	1770	1780	1790	1800	1810	1820	1830	1840	1850	1860	1870
Helitron	KSFKTSNTQGLCTSLVLLKTTAKYMMTVNVDSDGLVNGATGVLQMDLSSNPELLMIHFLPESVGVNARSKRSHSNESSWTPVQKTSKFGYHQNEQVITDRKQFPFVAAEAITHKSOGATY												
Muller-A	KSFKTSNTQGLCTSLVLLKTTAKYMMTVNVDSDGLVNGATGVLQMDLSSNPELLMIHFLPESVGVNARSKRSHSNESSWTPVQKTSKFGYHQNEQVITDRKQFPFVAAEAITHKSOGATY												
	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	
Helitron	SKVVVHTSSNMQRALYVACSRATSNAGLYIVGVLIPSRPKRDCPVAKEMENLRSAKLLHTHFDCLLNPSELNIFPHNKESLCHFDVCSQDQLMKSSILCFVEASTYSNEAYNIPGFSTAVRL												
Muller-A	SKVVVHTSSNMQRALYVACSRATSNAGLYIVGVLIPSRPKRDCPVAKEMENLRSAKLLHTHFDCLLNPSELNIFPHNKESLCHFDVCSQDQLMKSSILCFVEASTYSNEAYNIPGFSTAVRL												
	2000	2010	2020	2030	2040	2050							
Helitron	DCQSVASGARPKRGILIFVRNELLNHCSSIIIESNRYADSGNLASPVFYEALFKYKS												
Muller-A	DCQSVASGARPKRGILIFVRNELLNHCSSIIIESNRYADSGNLASPVFYEALFKYKS												

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