

Anomalous Cancellation

Shalosh B. EKHAD and Doron ZEILBERGER

$$\frac{64}{160} = \frac{4}{10}$$

$$\frac{95}{190} = \frac{5}{10}$$

$$\frac{96}{192} = \frac{6}{12}$$

$$\frac{97}{194} = \frac{7}{14}$$

$$\frac{291}{194} = \frac{21}{14}$$

$$\frac{98}{196} = \frac{8}{16}$$

$$\frac{294}{196} = \frac{24}{16}$$

$$\frac{490}{196} = \frac{40}{16}$$

$$\frac{1221}{222} = \frac{121}{22}$$

$$\frac{1342}{244} = \frac{132}{24}$$

$$\frac{65}{260} = \frac{5}{20}$$

$$\frac{665}{266} = \frac{65}{26}$$

$$\frac{1463}{266} = \frac{143}{26}$$

$$\frac{2261}{266} = \frac{221}{26}$$

$$\frac{1584}{288} = \frac{154}{28}$$

$$\frac{97}{291} = \frac{7}{21}$$

$$\frac{194}{291} = \frac{14}{21}$$

$$\frac{98}{294} = \frac{8}{24}$$

$$\frac{196}{294} = \frac{16}{24}$$

$$\frac{392}{294} = \frac{32}{24}$$

$$\frac{490}{294} = \frac{40}{24}$$

$$\frac{830}{332} = \frac{80}{32}$$

$$\frac{195}{390} = \frac{15}{30}$$

$$\frac{98}{392} = \frac{8}{32}$$

$$\frac{196}{392} = \frac{16}{32}$$

$$\frac{294}{392} = \frac{24}{32}$$

$$\frac{490}{392} = \frac{40}{32}$$

$$\frac{197}{394} = \frac{17}{34}$$

$$\frac{591}{394} = \frac{51}{34}$$

$$\frac{199}{398} = \frac{19}{38}$$

$$\frac{597}{398} = \frac{57}{38}$$

$$\frac{995}{398} = \frac{95}{38}$$

$$\frac{1393}{398} = \frac{133}{38}$$

$$\frac{1791}{398} = \frac{171}{38}$$

$$\frac{2321}{422} = \frac{231}{42}$$

$$\frac{1443}{444} = \frac{143}{44}$$

$$\frac{2442}{444} = \frac{242}{44}$$

$$\frac{3441}{444} = \frac{341}{44}$$

$$\frac{1160}{464} = \frac{110}{44}$$

$$\frac{1165}{466} = \frac{115}{46}$$

$$\frac{2563}{466} = \frac{253}{46}$$

$$\frac{3961}{466} = \frac{391}{46}$$

$$\frac{1586}{488} = \frac{156}{48}$$

$$\frac{2684}{488} = \frac{264}{48}$$

$$\frac{3782}{488} = \frac{372}{48}$$

$$\frac{98}{490} = \frac{8}{40}$$

$$\frac{196}{490} = \frac{16}{40}$$

$$\frac{294}{490} = \frac{24}{40}$$

$$\frac{392}{490} = \frac{32}{40}$$

$$\frac{133}{532} = \frac{13}{52}$$

$$\frac{931}{532} = \frac{91}{52}$$

$$\frac{1330}{532} = \frac{130}{52}$$

$$\frac{1554}{555} = \frac{154}{55}$$

$$\frac{2553}{555} = \frac{253}{55}$$

$$\frac{3552}{555} = \frac{352}{55}$$

$$\frac{4551}{555} = \frac{451}{55}$$

$$\frac{1872}{576} = \frac{182}{56}$$

$$\frac{295}{590} = \frac{25}{50}$$

$$\frac{197}{591} = \frac{17}{51}$$

$$\frac{394}{591} = \frac{34}{51}$$

$$\frac{296}{592} = \frac{26}{52}$$

$$\frac{298}{596} = \frac{28}{56}$$

$$\frac{894}{596} = \frac{84}{56}$$

$$\frac{1490}{596} = \frac{140}{56}$$

$$\frac{199}{597} = \frac{19}{57}$$

$$\frac{398}{597} = \frac{38}{57}$$

$$\frac{796}{597} = \frac{76}{57}$$

$$\frac{995}{597} = \frac{95}{57}$$

$$\frac{1393}{597} = \frac{133}{57}$$

$$\frac{1592}{597} = \frac{152}{57}$$

$$\frac{1990}{597} = \frac{190}{57}$$

$$\frac{299}{598} = \frac{29}{58}$$

$$\frac{897}{598} = \frac{87}{58}$$

$$\frac{1495}{598} = \frac{145}{58}$$

$$\frac{2093}{598} = \frac{203}{58}$$

$$\frac{2691}{598} = \frac{261}{58}$$

$$\frac{3421}{622} = \frac{341}{62}$$

$$\frac{3542}{644} = \frac{352}{64}$$

$$\frac{166}{664} = \frac{16}{64}$$

$$\frac{1162}{664} = \frac{112}{64}$$

$$\frac{1660}{664} = \frac{160}{64}$$

$$\frac{266}{665} = \frac{26}{65}$$

$$\frac{1064}{665} = \frac{104}{65}$$

$$\frac{1463}{665} = \frac{143}{65}$$

$$\frac{1862}{665} = \frac{182}{65}$$

$$\frac{2261}{665} = \frac{221}{65}$$

$$\frac{1665}{666} = \frac{165}{66}$$

$$\frac{3663}{666} = \frac{363}{66}$$

$$\frac{5661}{666} = \frac{561}{66}$$

$$\frac{3784}{688} = \frac{374}{68}$$

$$\frac{1830}{732} = \frac{180}{72}$$

$$\frac{2170}{775} = \frac{210}{75}$$

$$\frac{1776}{777} = \frac{176}{77}$$

$$\frac{2775}{777} = \frac{275}{77}$$

$$\frac{3774}{777} = \frac{374}{77}$$

$$\frac{4773}{777} = \frac{473}{77}$$

$$\frac{5772}{777} = \frac{572}{77}$$

$$\frac{6771}{777} = \frac{671}{77}$$

$$\frac{395}{790} = \frac{35}{70}$$

$$\frac{397}{794} = \frac{37}{74}$$

$$\frac{1191}{794} = \frac{111}{74}$$

$$\frac{199}{796} = \frac{19}{76}$$

$$\frac{398}{796} = \frac{38}{76}$$

$$\frac{597}{796} = \frac{57}{76}$$

$$\frac{995}{796} = \frac{95}{76}$$

$$\frac{1194}{796} = \frac{114}{76}$$

$$\frac{1393}{796} = \frac{133}{76}$$

$$\frac{1791}{796} = \frac{171}{76}$$

$$\frac{1990}{796} = \frac{190}{76}$$

$$\frac{399}{798} = \frac{39}{78}$$

$$\frac{1197}{798} = \frac{117}{78}$$

$$\frac{1995}{798} = \frac{195}{78}$$

$$\frac{2793}{798} = \frac{273}{78}$$

$$\frac{3591}{798} = \frac{351}{78}$$

$$\frac{45\cancel{2}1}{8\cancel{2}2} = \frac{451}{82}$$

$$\frac{3\cancel{3}2}{8\cancel{3}0} = \frac{32}{80}$$

$$\frac{27\cancel{4}3}{8\cancel{4}4} = \frac{273}{84}$$

$$\frac{46\cancel{4}2}{8\cancel{4}4} = \frac{462}{84}$$

$$\frac{65\cancel{4}1}{8\cancel{4}4} = \frac{651}{84}$$

$$\frac{19\cancel{5}2}{8\cancel{5}4} = \frac{192}{84}$$

$$\frac{30\cancel{5}0}{8\cancel{5}4} = \frac{300}{84}$$

$$\frac{21\cancel{6}0}{8\cancel{6}4} = \frac{210}{84}$$

$$\frac{21\cancel{6}5}{8\cancel{6}6} = \frac{215}{86}$$

$$\frac{47\cancel{6}3}{8\cancel{6}6} = \frac{473}{86}$$

$$\frac{73\cancel{6}1}{8\cancel{6}6} = \frac{731}{86}$$

$$\frac{18\cancel{8}7}{8\cancel{8}8} = \frac{187}{88}$$

$$\frac{28\cancel{8}6}{8\cancel{8}8} = \frac{286}{88}$$

$$\frac{38\cancel{8}5}{8\cancel{8}8} = \frac{385}{88}$$

$$\frac{48\cancel{8}4}{8\cancel{8}8} = \frac{484}{88}$$

$$\frac{58\cancel{8}3}{8\cancel{8}8} = \frac{583}{88}$$

$$\frac{68\cancel{8}2}{8\cancel{8}8} = \frac{682}{88}$$

$$\frac{78\cancel{8}1}{8\cancel{8}8} = \frac{781}{88}$$

$$\frac{298}{894} = \frac{28}{84}$$

$$\frac{596}{894} = \frac{56}{84}$$

$$\frac{1192}{894} = \frac{112}{84}$$

$$\frac{1490}{894} = \frac{140}{84}$$

$$\frac{299}{897} = \frac{29}{87}$$

$$\frac{598}{897} = \frac{58}{87}$$

$$\frac{1196}{897} = \frac{116}{87}$$

$$\frac{1495}{897} = \frac{145}{87}$$

$$\frac{2093}{897} = \frac{203}{87}$$

$$\frac{2392}{897} = \frac{232}{87}$$

$$\frac{2990}{897} = \frac{290}{87}$$

$$\frac{133}{931} = \frac{13}{91}$$

$$\frac{532}{931} = \frac{52}{91}$$

$$\frac{1330}{931} = \frac{130}{91}$$

$$\frac{233}{932} = \frac{23}{92}$$

$$\frac{1631}{932} = \frac{161}{92}$$

$$\frac{2330}{932} = \frac{230}{92}$$

$$\frac{2074}{976} = \frac{204}{96}$$

$$\frac{3172}{976} = \frac{312}{96}$$

$$\frac{4270}{976} = \frac{420}{96}$$

$$\frac{496}{992} = \frac{46}{92}$$

$$\frac{497}{994} = \frac{47}{94}$$

$$\frac{1491}{994} = \frac{141}{94}$$

$$\frac{199}{995} = \frac{19}{95}$$

$$\frac{398}{995} = \frac{38}{95}$$

$$\frac{597}{995} = \frac{57}{95}$$

$$\frac{796}{995} = \frac{76}{95}$$

$$\frac{1194}{995} = \frac{114}{95}$$

$$\frac{1393}{995} = \frac{133}{95}$$

$$\frac{1592}{995} = \frac{152}{95}$$

$$\frac{1791}{995} = \frac{171}{95}$$

$$\frac{498}{996} = \frac{48}{96}$$

$$\frac{1494}{996} = \frac{144}{96}$$

$$\frac{2490}{996} = \frac{240}{96}$$

$$\frac{499}{998} = \frac{49}{98}$$

$$\frac{1497}{998} = \frac{147}{98}$$

$$\frac{2495}{998} = \frac{245}{98}$$

$$\frac{3493}{998} = \frac{343}{98}$$

$$\frac{4491}{998} = \frac{441}{98}$$

References

Shalosh B. Ekhad, c/o D. Zeilberger, Department of Mathematics, Rutgers University (New Brunswick), Hill Center-Busch Campus, 110 Frelinghuysen Rd., Piscataway, NJ 08854-8019, USA.

Email: ShaloshBEkhad at gmail dot com .

Doron Zeilberger, Department of Mathematics, Rutgers University (New Brunswick), Hill Center-Busch Campus, 110 Frelinghuysen Rd., Piscataway, NJ 08854-8019, USA.

Email: DoronZeil at gmail dot com .