New formula of $\zeta$ even-numbers

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abstract
I published the odd value formula for $\zeta$, but I realized that this was true even when it was even. Therefore, it will be announced.

key words
$\zeta$ even-numbers, New formula

1 Introduction
I made official previous paper[1].

$$\zeta(2m - 1) = \frac{2^{2m-1}}{2^{2m-1} - 1} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{2m-1}}$$

$m$ is a positive integer.
This formula holds for odd numbers, but it may hold for even numbers.

In this case, the formula is transformed as follows:

$$\zeta(2m) = \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{2m}} + \sum_{n=1}^{\infty} \frac{1}{(2n)^{2m}} = \frac{1}{2^{2m}} \sum_{n=1}^{\infty} \frac{1}{n^{2m}} + \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{2m}} = \frac{1}{2^{2m}} \zeta(2m) + \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{2m}}$$

(2)

$$(1 - \frac{1}{2^{2m}})\zeta(2m) = (\frac{2^{2m} - 1}{2^{2m}})\zeta(2m) = \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{2m}}$$

(3)

$$\zeta(2m) = \frac{2^{2m}}{2^{2m} - 1} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{2m}}$$

(4)

$m$ is a positive integer.

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If $m = 1$

\[ \zeta(2) = \frac{2^2}{2^2 - 1} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^2} = \frac{4}{3} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^2} \]  

(5)

If $\infty = 10$
\[ \zeta(2) \approx 1.611628414... \]
If $\infty = 20$
\[ \zeta(2) \approx 1.628270869... \]
If $\infty = 30$
\[ \zeta(2) \approx 1.633823984... \]
\[ \zeta(2) = 1.644934066... \]

$\infty = 30$ seemed to be the limit of the calculator.

If $m = 2$

\[ \zeta(4) = \frac{16}{15} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^4} \]  

(6)

If $\infty = 10$
\[ \zeta(4) \approx 1.082301121... \]
If $\infty = 20$
\[ \zeta(4) \approx 1.082320459... \]
If $\infty = 30$
\[ \zeta(4) \approx 1.0823224... \]
\[ \zeta(4) = 1.0823232... \]

$\infty = 30$ seemed to be the limit of the calculator.

If $m = 3$

\[ \zeta(6) = \frac{64}{63} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^6} \]  

(7)

If $\infty = 10$
\[ \zeta(6) \approx 1.01734303062... \]
If $\infty = 20$
\[ \zeta(6) \approx 1.0173406099... \]
\[ \zeta(6) = 1.0173406198... \]

$\infty = 20$ seemed to be the limit of the calculator.

If $m = 4$

\[ \zeta(8) = \frac{256}{255} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^8} \]  

(8)

If $\infty = 10$
If $\infty=20$
\[ \zeta(8) \approx 1.0040773561975...
\]
\[ \zeta(8) = 1.00407735619794...
\]
$\infty=20$ seemed to be the limit of the calculator.

If $m=5$
\[ \zeta(10) = \frac{1024}{1023} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{10}} \]  \hspace{1cm} (9)

If $\infty=10$
\[ \zeta(10) \approx 1.00099457512771...
\]
\[ \zeta(10) = 1.00099457512781...
\]
$\infty=10$ seemed to be the limit of the calculator.

If $m=6$
\[ \zeta(12) = \frac{4096}{4095} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{12}} \]  \hspace{1cm} (10)

If $\infty=10$
\[ \zeta(12) \approx 1.000246086553078...
\]
\[ \zeta(12) = 1.000246086553080...
\]
$\infty=10$ seemed to be the limit of the calculator.

If $m=7$
\[ \zeta(14) = \frac{16384}{16383} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{14}} \]  \hspace{1cm} (11)

If $\infty=10$
\[ \zeta(14) \approx 1.00006124813505870439...
\]
\[ \zeta(14) = 1.00006124813505870482...
\]
$\infty=10$ seemed to be the limit of the calculator.

If $m=8$
\[ \zeta(16) = \frac{65536}{65535} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{16}} \]  \hspace{1cm} (12)

If $\infty=9$
\[ \zeta(16) \approx 1.000015282259408651846...
\]
\[ \zeta(18) = 1.000015282259408651871...
\]
$\infty=8$ seemed to be the limit of the calculator.
If \( m = 9 \)

\[
\zeta(18) = \frac{262144}{262143} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{18}}
\]

(13)

If \( \infty = 8 \)

\( \zeta(18) \approx 1.00000381729326499983977... \)

\( \zeta(18) = 1.000000381729326499983985... \)

\( \infty = 8 \) seemed to be the limit of the calculator.

If \( m = 10 \)

\[
\zeta(20) = \frac{1048576}{1048575} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{20}}
\]

(14)

If \( \infty = 8 \)

\( \zeta(20) \approx 1.0000009539620338727961128... \)

\( \zeta(20) = 1.0000009539620338727961131... \)

\( \infty = 8 \) seemed to be the limit of the calculator.

If \( m = 11 \)

\[
\zeta(22) = \frac{4194304}{4194303} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{22}}
\]

(15)

If \( \infty = 8 \)

\( \zeta(22) \approx 1.00000002384505027277329900027... \)

\( \zeta(22) = 1.00000002384505027277329900036... \)

\( \infty = 8 \) seemed to be the limit of the calculator.

If \( m = 12 \)

\[
\zeta(24) = \frac{16777216}{16777215} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{24}}
\]

(16)

If \( \infty = 8 \)

\( \zeta(24) \approx 1.0000000059608189051259479612437... \)

\( \zeta(24) = 1.0000000059608189051259479612440... \)

\( \infty = 8 \) seemed to be the limit of the calculator.
If \( m = 13 \)

\[
\zeta(26) = \frac{67108864}{67108863} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{26}}
\]  

If \( \infty = 6 \)

\( \zeta(26) \approx 1.000000014901554828365041234647... \)

\( \zeta(26) \approx 1.000000014901554828365041234658... \)

\( \infty = 6 \) seemed to be the limit of the calculator.

If \( m = 14 \)

\[
\zeta(28) = \frac{268435456}{268435455} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{28}}
\]  

If \( \infty = 6 \)

\( \zeta(28) \approx 1.00000000372533402478845705481913... \)

\( \zeta(28) \approx 1.00000000372533402478845705481920... \)

\( \infty = 6 \) seemed to be the limit of the calculator.

If \( m = 15 \)

\[
\zeta(30) = \frac{1073741824}{1073741823} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{30}}
\]  

If \( \infty = 6 \)

\( \zeta(30) \approx 1.00000000093132743241966818287176434... \)

\( \zeta(30) = 1.00000000093132743241966818287176473... \)

\( \infty = 6 \) seemed to be the limit of the calculator.

If \( m = 16 \)

\[
\zeta(32) = \frac{4294967296}{4294967295} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{32}}
\]  

If \( \infty = 4 \)

\( \zeta(32) \approx 1.0000000000232831183367650549199... \)

\( \zeta(32) = 1.0000000000232831183367650549200... \)

\( \infty = 4 \) seemed to be the limit of the calculator.

If \( m = 17 \)

\[
n\zeta(34) = \frac{17179869184}{17179869183} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{34}}
\]  

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If \(\infty=4\)
\[
\zeta(34) \approx 1.0000000000582077208790270088924332...
\]
\[
\zeta(34) = 1.0000000000582077208790270088924368...
\]
\(\infty=4\) seemed to be the limit of the calculator.

If \(m=18\)
\[
\zeta(36) = \frac{68719476736}{68719476735} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{36}}
\]
(22)

If \(\infty=4\)
\[
\zeta(36) \approx 1.00000000001455192189104198423592958...
\]
\[
\zeta(36) = 1.00000000001455192189104198423592963...
\]
\(\infty=4\) seemed to be the limit of the calculator.

If \(m=19\)
\[
\zeta(38) = \frac{274877906944}{274877906943} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{38}}
\]
(23)

If \(\infty=4\)
\[
\zeta(38) \approx 1.000000000036379795473786511902372358...
\]
\[
\zeta(38) = 1.000000000036379795473786511902372363...
\]
\(\infty=4\) seemed to be the limit of the calculator.

If \(m=20\)
\[
\zeta(40) = \frac{1099511627776}{1099511627775} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{40}}
\]
(24)

If \(\infty=4\)
\[
\zeta(40) \approx 1.000000000009094947840263889282533118319...
\]
\[
\zeta(40) = 1.000000000009094947840263889282533118386...
\]
\(\infty=4\) seemed to be the limit of the calculator.

If \(m=21\)
\[
\zeta(42) = \frac{4398046511104}{4398046511103} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{42}}
\]
(25)

If \(\infty=4\)
\[
\zeta(42) \approx 1.000000000000227373684582465251522682157714...
\]
\[
\zeta(42) = 1.000000000000227373684582465251522682157797...
\]
\(\infty=4\) seemed to be the limit of the calculator.
If $m=22$

\[ \zeta(44) = \frac{17592186044416}{17592186044415} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{44}} \]  

(26)

If $\infty=4$

$\zeta(44) \approx 1.000000000000056843419876275856092771829674...$

$\zeta(44) = 1.000000000000056843419876275856092771829675...$

$\infty=4$ seemed to be the limit of the calculator.

If $m=23$

\[ \zeta(46) = \frac{70368744177664}{70368744177663} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{46}} \]  

(27)

If $\infty=4$

$\zeta(46) \approx 1.000000000000014210854828031606769834307141726...$

$\zeta(46) = 1.000000000000014210854828031606769834307141739...$

$\infty=4$ seemed to be the limit of the calculator.

If $m=24$

\[ \zeta(48) = \frac{281474976710656}{281474976710655} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{48}} \]  

(28)

If $\infty=4$

$\zeta(48) \approx 1.00000000000000355271369133711367329846953405918...$

$\zeta(48) = 1.00000000000000355271369133711367329846953405934...$

$\infty=4$ seemed to be the limit of the calculator.

If $m=25$

\[ \zeta(50) = \frac{1125899906842624}{1125899906842623} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{50}} \]  

(29)

If $\infty=4$

$\zeta(50) \approx 1.0000000000000008881784210930815903096091386391366...$

$\zeta(50) = 1.0000000000000008881784210930815903096091386391386...$

$\infty=4$ seemed to be the limit of the calculator.

If $m=26$

\[ \zeta(52) = \frac{4503599627370496}{4503599627370495} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{52}} \]  

(30)

If $\infty=3$

$\zeta(52) \approx 1.000000000000000222044605079804198399932009409...$
\( \zeta(52) = 1.0000000000000000222044605079804198399932009420... \)
\( \infty=3 \) seemed to be the limit of the calculator.

If \( m=27 \)
\[
\zeta(54) = \frac{18014398509481984}{18014398509481983} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{54}}
\] (31)

If \( \infty=3 \)
\( \zeta(54) \approx 1.0000000000000000555111511512484548124372373659048... \)
\( \zeta(54) = 1.00000000000000000555111511512484548124372373659050... \)
\( \infty=3 \) seemed to be the limit of the calculator.

If \( m=28 \)
\[
\zeta(56) = \frac{72057594037927936}{72057594037927935} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{56}}
\] (32)

If \( \infty=3 \)
\( \zeta(56) \approx 1.000000000000000013877787809725232762839094906495... \)
\( \zeta(56) = 1.0000000000000000013877787809725232762839094906500... \)
\( \infty=3 \) seemed to be the limit of the calculator.

If \( m=29 \)
\[
\zeta(58) = \frac{288230376151711744}{288230376151711743} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{58}}
\] (33)

If \( \infty=3 \)
\( \zeta(58) \approx 1.00000000000000000346944695216592262474427149610923... \)
\( \zeta(58) = 1.000000000000000000346944695216592262474427149610933... \)
\( \infty=3 \) seemed to be the limit of the calculator.

If \( m=30 \)
\[
\zeta(60) = \frac{1152921504606846976}{1152921504606846975} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{60}}
\] (34)

If \( \infty=3 \)
\( \zeta(60) \approx 1.0000000000000000008673617380119933728342055067342931... \)
\( \zeta(60) = 1.00000000000000000008673617380119933728342055067342951... \)
\( \infty=3 \) seemed to be the limit of the calculator.
If $m=31$

$$\zeta(62) = \frac{4611686018427387904}{4611686018427387903} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{62}}$$

If $\infty=3$

$$\zeta(62) \approx 1.0000000000000000216840434499721978501391016832098417\ldots$$

$$\zeta(62) = 1.0000000000000000216840434499721978501391016832098457\ldots$$

$\infty=3$ seemed to be the limit of the calculator.

If $m=32$

$$\zeta(64) = \frac{18446744073709551616}{18446744073709551615} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{64}}$$

If $\infty=3$

$$\zeta(64) \approx 1.00000000000000000542101086245664541091870040438863363\ldots$$

$$\zeta(64) = 1.00000000000000000542101086245664541091870040438863371\ldots$$

$\infty=3$ seemed to be the limit of the calculator.

If $m=33$

$$\zeta(66) = \frac{73786976294838206464}{73786976294838206463} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{66}}$$

If $\infty=3$

$$\zeta(66) \approx 1.000000000000000013552527156101164581485233996826928312\ldots$$

$$\zeta(66) = 1.000000000000000013552527156101164581485233996826928329\ldots$$

$\infty=3$ seemed to be the limit of the calculator.

If $m=34$

$$\zeta(68) = \frac{295147905179352825856}{295147905179352825855} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{68}}$$

If $\infty=3$

$$\zeta(68) \approx 1.0000000000000000033881317989020796818085703100450836833\ldots$$

$$\zeta(68) = 1.0000000000000000033881317989020796818085703100450836834\ldots$$

$\infty=3$ seemed to be the limit of the calculator.

If $m=35$

$$\zeta(70) = \frac{11805916207174111303424}{11805916207174111303423} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{70}}$$

If $\infty=3$

$$\zeta(70) \approx 1.000000000000000008470329472546998348246992609182167522214\ldots$$

$$\zeta(70) = 1.000000000000000008470329472546998348246992609182167522283\ldots$$
\( \infty = 3 \) seemed to be the limit of the calculator.

If \( m = 36 \)
\[
\zeta(72) = \frac{4722366482869645213696}{4722366482869645213695} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{72}}
\]
(40)

If \( \infty = 3 \)
\[
\zeta(72) \approx 1.0000000000000000000000021175823681361947318442094398180025869403\ldots
\]
\[
\zeta(72) = 1.0000000000000000000000021175823681361947318442094398180025869417\ldots
\]
\( \infty = 3 \) seemed to be the limit of the calculator.

If \( m = 37 \)
\[
\zeta(74) = \frac{18889465931478580854784}{18889465931478580854783} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{74}}
\]
(41)

If \( \infty = 3 \)
\[
\zeta(74) \approx 1.00000000000000000000000529395592033987032381391230291850558663727\ldots
\]
\[
\zeta(74) = 1.00000000000000000000000529395592033987032381391230291850558663756\ldots
\]
\( \infty = 3 \) seemed to be the limit of the calculator.

If \( m = 38 \)
\[
\zeta(76) = \frac{75557863725914323419136}{75557863725914323419135} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{76}}
\]
(42)

If \( \infty = 3 \)
\[
\zeta(76) \approx 1.000000000000000000000001323488980084899080309451025094498968432376\ldots
\]
\[
\zeta(76) = 1.000000000000000000000001323488980084899080309451025094498968432382\ldots
\]
\( \infty = 3 \) seemed to be the limit of the calculator.

If \( m = 39 \)
\[
\zeta(78) = \frac{302231454903657293676544}{302231454903657293676543} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{78}}
\]
(43)

If \( \infty = 3 \)
\[
\zeta(78) \approx 1.0000000000000000000000033087224502121715889469563843144048092764881\ldots
\]
\[
\zeta(78) = 1.0000000000000000000000033087224502121715889469563843144048092764894\ldots
\]
\( \infty = 3 \) seemed to be the limit of the calculator.

If \( m = 40 \)
\[
\zeta(80) = \frac{1208925819614629174706176}{1208925819614629174706175} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{80}}
\]
(44)
If $\infty=3$

\[ \zeta(80) \approx 1.00000000000000000000000008271806125530344036711056167440724040096808... \]

\[ \zeta(80) = 1.00000000000000000000000008271806125530344036711056167440724040096811... \]

$\infty=3$ seemed to be the limit of the calculator.

If $m=41$

\[ \zeta(82) = \frac{4835703278458516698824704}{4835703278458516698824703} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{82}} \]  \hspace{1cm} (45)

If $\infty=2$

\[ \zeta(82) \approx 1.00000000000000000000000020679515313825767043959679193468902... \]

\[ \zeta(82) = 1.00000000000000000000000020679515313825767043959679193468950... \]

$\infty=2$ seemed to be the limit of the calculator.

If $m=42$

\[ \zeta(84) = \frac{19342813113834066795298816}{19342813113834066795298815} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{84}} \]  \hspace{1cm} (46)

If $\infty=2$

\[ \zeta(84) \approx 1.0000000000000000000000005169878828456431320410133216635549... \]

\[ \zeta(84) = 1.0000000000000000000000005169878828456431320410133216635551... \]

$\infty=2$ seemed to be the limit of the calculator.

If $m=43$

\[ \zeta(86) = \frac{77371252455336267181195264}{77371252455336267181195263} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{86}} \]  \hspace{1cm} (47)

If $\infty=2$

\[ \zeta(86) \approx 1.0000000000000000000000001292469707111410667003811261183318645... \]

\[ \zeta(86) = 1.0000000000000000000000001292469707111410667003811261183318653... \]

$\infty=2$ seemed to be the limit of the calculator.

If $m=44$

\[ \zeta(88) = \frac{309485009821345068724781056}{309485009821345068724781055} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{88}} \]  \hspace{1cm} (48)

If $\infty=2$

\[ \zeta(88) \approx 1.00000000000000000000000000323174267785265386134814118026657386... \]

\[ \zeta(88) = 1.00000000000000000000000000323174267785265386134814118026657417... \]

$\infty=2$ seemed to be the limit of the calculator.
If $m=45$

$$\zeta(90) = \frac{1237940039285380274899124224}{123794003928538027489912423} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{90}}$$

If $\infty=2$

$\zeta(90) \approx 1.0000000000000000000000000000000000008077935669463162033158738186340899727...$

$\zeta(90) = 1.0000000000000000000000000000000000008077935669463162033158738186340899739...$

$\infty=2$ seemed to be the limit of the calculator.

If $m=46$

$$\zeta(92) = \frac{4951760157141521099596496896}{4951760157141521099596496895} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{92}}$$

If $\infty=2$

$\zeta(92) \approx 1.00000000000000000000000000000000000020194839173657903491587626465673047513...$

$\zeta(92) = 1.00000000000000000000000000000000000020194839173657903491587626465673047518...$

$\infty=2$ seemed to be the limit of the calculator.

If $m=47$

$$\zeta(94) = \frac{19807040628566084398385987584}{19807040628566084398385987583} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{94}}$$

If $\infty=2$

$\zeta(94) \approx 1.000000000000000000000000000000000000050487097934144756960847711725486604358...$

$\zeta(94) = 1.000000000000000000000000000000000000050487097934144756960847711725486604360...$

If $m=48$

$$\zeta(96) = \frac{79228162514264337593543950336}{79228162514264337593543950335} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{96}}$$

If $\infty=2$

$\zeta(96) \approx 1.0000000000000000000000000000000000001262177448353618904375399966077714871055...$

$\zeta(96) = 1.0000000000000000000000000000000000001262177448353618904375399966077714871063...$

If $m=49$

$$\zeta(98) = \frac{316912650057057350374175801344}{316912650057057350374175801343} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{98}}$$

If $\infty=2$

$\zeta(98) \approx 1.0000000000000000000000000000000000000031554436208840472391098412184847972814339...$

$\zeta(98) = 1.0000000000000000000000000000000000000031554436208840472391098412184847972814371...$
If $m=50$
$$\zeta(100) = \frac{1267650600228229401496703205376}{1267650600228229401496703205375} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{100}}$$ (54)

If $\infty=2$
$$\zeta(100) \approx 1.0000000000000000000000000000007888609522101180735205378276604136878949...$$
$$\zeta(100) = 1.0000000000000000000000000000007888609522101180735205378276604136878962...$$

If $m=51$
$$\zeta(102) = \frac{5070602400912917605986812821504}{5070602400912917605986812821503} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{102}}$$ (55)

If $\infty=2$
$$\zeta(102) \approx 1.0000000000000000000000000000001972152263052529515685238321521390998847333...$$
$$\zeta(102) = 1.0000000000000000000000000000001972152263052529515685238321521390998847384...$$

If $m=52$
$$\zeta(104) = \frac{20282409603651670423947251286016}{20282409603651670423947251286015} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{104}}$$ (56)

If $\infty=2$
$$\zeta(104) \approx 1.00000000000000000000000000000004930380657631323786218766764477697562224575445...$$
$$\zeta(104) = 1.00000000000000000000000000000004930380657631323786218766764477697562224575445...$$

If $m=53$
$$\zeta(106) = \frac{81129638414606681695789005144064}{81129638414606681695789005144063} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{106}}$$ (57)

If $\infty=2$
$$\zeta(106) \approx 1.0000000000000000000000000000000012325951644078309459...$$
$$\zeta(106) = 1.0000000000000000000000000000000012325951644078309462...$$

If $m=54$
$$\zeta(108) = \frac{324518553658426726783156020576256}{324518553658426726783156020576255} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{108}}$$ (58)

If $\infty=2$
$$\zeta(108) \approx 1.00000000000000000000000000000000308148791101957736518530090955071302501052611...$$
$$\zeta(108) = 1.00000000000000000000000000000000308148791101957736518530090955071302501052643...$$
If \( m = 55 \)
\[
\zeta(110) = \frac{1298074214633706907132624082305024}{1298074214633706907132624082305025} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{110}}
\] (59)

If \( \infty = 2 \)
\[
\zeta(110) \approx 1.000000000000000000000000000000000770371977754894341255250754968951500863982293...
\]
\[
\zeta(110) =
1.000000000000000000000000000000000770371977754894341255250754968951500863982306...
\]

If \( m = 56 \)
\[
\zeta(112) = \frac{5192296858534827628530496329220096}{5192296858534827628530496329220095} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{112}}
\] (60)

If \( \infty = 2 \)
\[
\zeta(112) \approx 1.000000000000000000000000000000000192592994387235853092488584734905444987336187...
\]
\[
\zeta(112) =
1.000000000000000000000000000000000192592994387235853092488584734905444987336193......
\]

If \( m = 57 \)
\[
\zeta(114) = \frac{20769187434139310514121985316880384}{20769187434139310514121985316880383} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{114}}
\] (61)

If \( \infty = 2 \)
\[
\zeta(114) \approx 1.0000000000000000000000000000000004814824860968089632680512236628960478757935062...
\]
\[
\zeta(114) =
1.0000000000000000000000000000000004814824860968089632680512236628960478757935083...
\]

If \( m = 58 \)
\[
\zeta(116) = \frac{83076749736557242056487941267521536}{83076749736557242056487941267521535} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{116}}
\] (62)

If \( \infty = 2 \)
\[
\zeta(116) \approx 1.000000000000000000000000000000000120370621524202240816449370080076202752955060823...
\]
\[
\zeta(116) =
1.000000000000000000000000000000000120370621524202240816449370080076202752955060831...
\]
If \( m = 59 \)
\[
\zeta(118) = \frac{332306998946228968225951765070086144}{332306998946228968225951765070086143} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{118}}
\] (63)

If \( \infty = 2 \)
\[
\zeta(118) \approx 1.000000000000000000000000000000000003009265538105056020399...
\]
\[
\zeta(118) =
1.000000000000000000000000000000000003009265538105056020404...
\]

If \( m = 60 \)
\[
\zeta(120) = \frac{1329227995784915872903807060280344576}{1329227995784915872903807060280344575} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{120}}
\] (64)

If \( \infty = 2 \)
\[
\zeta(120) \approx 1.000000000000000000000000000000000000752316384526264005100547863659914078685253127399...
\]
\[
\zeta(120) =
1.000000000000000000000000000000000000752316384526264005100547863659914078685253127401...
\]

If \( m = 61 \)
\[
\zeta(122) = \frac{5316911983139663491615228241121378304}{5316911983139663491615228241121378303} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{122}}
\] (65)

If \( \infty = 2 \)
\[
\zeta(122) \approx 1.0000000000000000000000000000000000001880790961315660012750596770486345134102854831174...
\]
\[
\zeta(122) =
1.0000000000000000000000000000000000001880790961315660012750596770486345134102854831180...
\]

If \( m = 62 \)
\[
\zeta(124) = \frac{21267647932558653966460912964485513216}{21267647932558653966460912964485513215} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{124}}
\] (66)

If \( \infty = 2 \)
\[
\zeta(124) \approx 1.0000000000000000000000000000000000000470197740328915003187563316103426276620602867128264...
\]
\[
\zeta(124) =
1.0000000000000000000000000000000000000470197740328915003187563316103426276620602867128285...
\]

If \( m = 63 \)
\[
\zeta(126) = \frac{85070591730234615865843651857942052864}{85070591730234615865843651857942052863} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{126}}
\] (67)

If \( \infty = 2 \)
\[ \zeta(126) \approx 1.00000000000000000000000000000000000000293873587705571876992192615936984630000750877801376431... \]

\[ \zeta(126)= 1.0000000000000000000000000000000000000029387358770557187699219261593698463000075087780137645... \]

If \( m = 64 \)
\[ \zeta(128) = \frac{340282366920938463463374607431768211456}{340282366920938463463374607431768211455} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{128}} \]  
(68)

If \( \infty = 2 \)
\[ \zeta(128) \approx 1.0000000000000000000000000000000000000007346839692639296248046975979881822702829325792306253... \]

\[ \zeta(128)= 1.0000000000000000000000000000000000000007346839692639296248046975979881822702829325792306267... \]

If \( m = 65 \)
\[ \zeta(130) = \frac{136112946768375385353498429727072845824}{136112946768375385353498429727072845823} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{130}} \]  
(69)

If \( \infty = 2 \)
\[ \zeta(130) \approx 1.000000000000000000000000000000000000000183670992315982423120116131055966406980432175435258616... \]

\[ \zeta(130)= 1.000000000000000000000000000000000000000183670992315982423120116131055966406980432175435258622... \]

If \( m = 66 \)
\[ \zeta(132) = \frac{544517870735015415413993718908291383296}{544517870735015415413993718908291383295} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{132}} \]  
(70)

If \( \infty = 2 \)
\[ \zeta(132) \approx 1.000000000000000000000000000000000000000459177480789956057002888733135402954770839254613... \]

\[ \zeta(132)= 1.000000000000000000000000000000000000000459177480789956057002888733135402954770839254613... \]

If \( m = 67 \)
\[ \zeta(134) = \frac{21778071482940061661655974875633165533184}{21778071482940061661655974875633165533183} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{134}} \]  
(71)

If \( \infty = 2 \)
\[ \zeta(134) \approx 1.0000000000000000000000000000000000000000459177480789956057002888733135402954770839254613... \]

\[ \zeta(134)= 1.0000000000000000000000000000000000000000459177480789956057002888733135402954770839254613... \]
If \( m = 68 \)
\[
ζ(136) = \frac{87112285931760246666623899502532662132736}{87112285931760246666623899502532662132735} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{136}}
\] (72)

If \( \infty = 2 \)
\[
ζ(136) \approx 1.000000000000000000000000000000000000000011479437019748901445007205673656554920549666582563
764422...
\]
\( ζ(136) = \)
\[
1.000000000000000000000000000000000000000011479437019748901445007205673656554920549666582563
764431...
\]

If \( m = 69 \)
\[
ζ(138) = \frac{348449143727040986586495598010130648530944}{348449143727040986586495598010130648530943} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{138}}
\] (73)

If \( \infty = 2 \)
\[
ζ(138) \approx 1.0000000000000000000000000000000000000000028698592549372253612517996229494773449843879
127482537648...
\]
\( ζ(138) = \)
\[
1.0000000000000000000000000000000000000000028698592549372253612517996229494773449843879
127482537652...
\]

If \( m = 70 \)
\[
ζ(140) = \frac{1393796574908163946345982392040522594123776}{1393796574908163946345982392040522594123776} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{140}}
\] (74)

If \( \infty = 2 \)
\[
ζ(140) \approx 1.00000000000000000000000000000000000000000717464813734306340312949706241295849006872
764517980168105...
\]
\( ζ(140) = \)
\[
1.00000000000000000000000000000000000000000717464813734306340312949706241295849006872
764517980168118...
\]

If \( m = 71 \)
\[
ζ(142) = \frac{5575186299632655785383929568162090376495104}{5575186299632655785383929568162090376495103} \sum_{n=1}^{\infty} \frac{1}{(2n - 1)^{142}}
\] (75)
If $\infty = 2$
\[\zeta(142) \approx 1.0000000000000000000000000000000000000000001793662034335765850782374043940935747806933535681450803114\ldots
\]
\[\zeta(142) = 1.0000000000000000000000000000000000000000001793662034335765850782374043940935747806933535681450803119\ldots
\]

If $m=72$
\[\zeta(144) = \frac{22300745198530623141535718272648361505980416}{22300745198530623141535718272648361505980415} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{144}} \tag{76}
\]
If $\infty = 2$
\[\zeta(144) \approx 1.000000000000000000000000000000000000000000044841550858394146269559348635608906198392805577003868899\ldots\]
\[\zeta(144) = 1.000000000000000000000000000000000000000000044841550858394146269559348635608906198392805577003868899\ldots
\]

If $m=73$
\[\zeta(146) = \frac{89202980794122492566142873090593446023921664}{89202980794122492566142873090593446023921663} \sum_{n=1}^{\infty} \frac{1}{(2n-1)^{146}} \tag{77}
\]
If $\infty = 2$
\[\zeta(146) \approx 1.00000000000000000000000000000000000000000011210387714598536567389836885245061272178142485817216754\ldots\]
\[\zeta(146) = 1.00000000000000000000000000000000000000000011210387714598536567389836885245061272178142485817216754\ldots
\]

The computer can’t give me any more precision.

## 2 Conclusion

The odd formula for $\zeta$ has been released, but it has become clear that this is true even when it is even.

## 3 Appendices

I use WolframAlpha for calculation.
References


