$$
\begin{aligned}
2 = {} & \frac{1}{13}+\frac{1}{19}+\frac{1}{23}+\frac{1}{26}+\frac{1}{27}+\frac{1}{29}+\frac{1}{32}+\frac{1}{34}+\frac{1}{35}+\frac{1}{36}+\frac{1}{38}+\frac{1}{39}+\frac{1}{40}+\frac{1}{42}+\frac{1}{44}+\frac{1}{45}+\frac{1}{46}+\frac{1}{49}+\frac{1}{50}+\frac{1}{51}+ \\
& \frac{1}{52}+\frac{1}{55}+\frac{1}{56}+\frac{1}{57}+\frac{1}{58}+\frac{1}{60}+\frac{1}{62}+\frac{1}{63}+\frac{1}{64}+\frac{1}{65}+\frac{1}{66}+\frac{1}{68}+\frac{1}{69}+\frac{1}{70}+\frac{1}{72}+\frac{1}{75}+\frac{1}{76}+\frac{1}{77}+\frac{1}{78}+\frac{1}{80}+\frac{1}{81}+ \\
& \frac{1}{84}+\frac{1}{85}+\frac{1}{87}+\frac{1}{90}+\frac{1}{91}+\frac{1}{92}+\frac{1}{93}+\frac{1}{95}+\frac{1}{96}+\frac{1}{98}+\frac{1}{99}+\frac{1}{102}+\frac{1}{104}+\frac{1}{105}+\frac{1}{108}+\frac{1}{110}+\frac{1}{112}+\frac{1}{114}+\frac{1}{115}+ \\
& \frac{1}{116}+\frac{1}{117}+\frac{1}{119}+\frac{1}{120}+\frac{1}{124}+\frac{1}{125}+\frac{1}{126}+\frac{1}{128}+\frac{1}{130}+\frac{1}{132}+\frac{1}{133}+\frac{1}{135}+\frac{1}{136}+\frac{1}{138}+\frac{1}{140}+\frac{1}{144}+\frac{1}{145}+ \\
& \frac{1}{147}+\frac{1}{150}+\frac{1}{152}+\frac{1}{153}+\frac{1}{154}+\frac{1}{155}+\frac{1}{156}+\frac{1}{160}+\frac{1}{161}+\frac{1}{162}+\frac{1}{165}+\frac{1}{168}+\frac{1}{170}+\frac{1}{171}+\frac{1}{174}+\frac{1}{175}+\frac{1}{176}+ \\
& \frac{1}{180}+\frac{1}{182}+\frac{1}{184}+\frac{1}{186}+\frac{1}{187}+\frac{1}{189}+\frac{1}{190}+\frac{1}{195}+\frac{1}{196}+\frac{1}{198}+\frac{1}{200}+\frac{1}{204}+\frac{1}{207}+\frac{1}{208}+\frac{1}{209}+\frac{1}{210}+\frac{1}{216}+ \\
& \frac{1}{217}+\frac{1}{220}+\frac{1}{221}+\frac{1}{224}+\frac{1}{225}+\frac{1}{228}+\frac{1}{231}+\frac{1}{232}+\frac{1}{234}+\frac{1}{238}+\frac{1}{240}+\frac{1}{245}+\frac{1}{247}+\frac{1}{248}+\frac{1}{252}+\frac{1}{253}+\frac{1}{255}+ \\
& \frac{1}{256}+\frac{1}{260}+\frac{1}{261}+\frac{1}{264}+\frac{1}{270}+\frac{1}{272}+\frac{1}{273}+\frac{1}{275}+\frac{1}{276}+\frac{1}{279}+\frac{1}{280}+\frac{1}{285}+\frac{1}{286}+\frac{1}{288}+\frac{1}{290}+\frac{1}{294}+\frac{1}{297}+ \\
& \frac{1}{299}+\frac{1}{300}+\frac{1}{304}+\frac{1}{306}+\frac{1}{308}+\frac{1}{310}+\frac{1}{312}+\frac{1}{315}+\frac{1}{319}+\frac{1}{320}+\frac{1}{322}+\frac{1}{323}+\frac{1}{324}+\frac{1}{325}+\frac{1}{330}+\frac{1}{336}+\frac{1}{340}+ \\
& \frac{1}{341}+\frac{1}{342}+\frac{1}{345}+\frac{1}{348}+\frac{1}{350}+\frac{1}{351}+\frac{1}{352}+\frac{1}{357}+\frac{1}{360}+\frac{1}{364}+\frac{1}{368}+\frac{1}{372}+\frac{1}{374}+\frac{1}{377}+\frac{1}{378}+\frac{1}{380}+\frac{1}{384}+ \\
& \frac{1}{385}+\frac{1}{390}+\frac{1}{391}+\frac{1}{392}+\frac{1}{396}+\frac{1}{399}+\frac{1}{400}+\frac{1}{403}+\frac{1}{405}+\frac{1}{406}+\frac{1}{408}+\frac{1}{414}+\frac{1}{416}+\frac{1}{418}+\frac{1}{420}+\frac{1}{425}+\frac{1}{429}+ \\
& \frac{1}{432}+\frac{1}{434}+\frac{1}{435}+\frac{1}{437}+\frac{1}{440}+\frac{1}{441}+\frac{1}{442}+\frac{1}{448}+\frac{1}{450}+\frac{1}{455}+\frac{1}{456}+\frac{1}{459}+\frac{1}{460}+\frac{1}{462}+\frac{1}{464}+\frac{1}{465}+\frac{1}{468}+ \\
& \frac{1}{475}+\frac{1}{476}+\frac{1}{480}+\frac{1}{483}+\frac{1}{490}+\frac{1}{493}+\frac{1}{494}+\frac{1}{495}+\frac{1}{496}+\frac{1}{504}+\frac{1}{506}+\frac{1}{510}+\frac{1}{513}+\frac{1}{520}+\frac{1}{522}+\frac{1}{525}+\frac{1}{527}+ \\
& \frac{1}{528}+\frac{1}{532}+\frac{1}{539}+\frac{1}{540}+\frac{1}{544}+\frac{1}{546}+\frac{1}{550}+\frac{1}{551}+\frac{1}{552}+\frac{1}{558}+\frac{1}{560}+\frac{1}{561}+\frac{1}{567}+\frac{1}{570}+\frac{1}{572}+\frac{1}{575}+\frac{1}{576}+ \\
& \frac{1}{580}+\frac{1}{585}+\frac{1}{588}+\frac{1}{589}+\frac{1}{594}+\frac{1}{595}+\frac{1}{598}+\frac{1}{600}+\frac{1}{608}+\frac{1}{609}+\frac{1}{612}+\frac{1}{616}+\frac{1}{620}+\frac{1}{621}+\frac{1}{624}+\frac{1}{627}+\frac{1}{630}+ \\
& \frac{1}{637}+\frac{1}{638}+\frac{1}{640}+\frac{1}{644}+\frac{1}{646}+\frac{1}{648}+\frac{1}{650}+\frac{1}{651}+\frac{1}{660}+\frac{1}{663}+\frac{1}{665}+\frac{1}{667}+\frac{1}{672}+\frac{1}{675}+\frac{1}{680}+\frac{1}{682}+\frac{1}{684}+ \\
& \frac{1}{690}+\frac{1}{693}+\frac{1}{696}+\frac{1}{700}+\frac{1}{702}+\frac{1}{704}+\frac{1}{713}+\frac{1}{714}+\frac{1}{715}+\frac{1}{720}+\frac{1}{725}+\frac{1}{728}+\frac{1}{735}+\frac{1}{736}+\frac{1}{741}+\frac{1}{744}+\frac{1}{748}+ \\
& \frac{1}{750}+\frac{1}{754}+\frac{1}{756}+\frac{1}{759}+\frac{1}{760}+\frac{1}{765}+\frac{1}{768}+\frac{1}{770}+\frac{1}{775}+\frac{1}{780}+\frac{1}{782}+\frac{1}{783}+\frac{1}{784}+\frac{1}{792}+\frac{1}{798}+\frac{1}{800}+\frac{1}{805}+ \\
& \frac{1}{806}+\frac{1}{810}+\frac{1}{812}+\frac{1}{816}+\frac{1}{819}+\frac{1}{825}+\frac{1}{828}+\frac{1}{832}+\frac{1}{833}+\frac{1}{836}+\frac{1}{837}+\frac{1}{840}+\frac{1}{850}+\frac{1}{855}+\frac{1}{858}+\frac{1}{864}+\frac{1}{868}+ \\
& \frac{1}{870}+\frac{1}{874}+\frac{1}{875}+\frac{1}{880}+\frac{1}{882}+\frac{1}{884}+\frac{1}{891}+\frac{1}{896}+\frac{1}{897}+\frac{1}{899}+\frac{1}{900}+\frac{1}{910}+\frac{1}{912}+\frac{1}{918}+\frac{1}{920}+\frac{1}{924}+\frac{1}{928}+ \\
& \frac{1}{930}+\frac{1}{931}+\frac{1}{935}+\frac{1}{936}+\frac{1}{945}+\frac{1}{950}+\frac{1}{952}+\frac{1}{957}+\frac{1}{960}+\frac{1}{966}+\frac{1}{969}+\frac{1}{975}+\frac{1}{980}+\frac{1}{986}+\frac{1}{988}+\frac{1}{990}+\frac{1}{992}
\end{aligned}
$$

Number of terms: 366