

Medium

Deputy Executive Engineer (Electricity) - 2026

Public Works Authority of Gujarat / Assistant Engineer (Electrical)

- A

$\frac{1}{2} \times \frac{2}{3}$

Correct
- B

$\frac{1}{2}$
- C

$\frac{2}{3}$
- D

$\frac{1}{2}, \frac{2}{3}$

Correct Answer: A

Full Detailed Explanation

∴ A - $\frac{1}{2} \times \frac{2}{3}$
 $\frac{1}{2} \times \frac{2}{3} = \frac{1}{3}$
 $\frac{1}{3} \times \frac{2}{3} = \frac{2}{9}$
 $\frac{2}{9} \times \frac{1}{2} = \frac{1}{9}$
 $\frac{1}{9} \times \frac{2}{3} = \frac{2}{27}$
 $\frac{2}{27} \times \frac{1}{2} = \frac{1}{27}$
 $\frac{1}{27} \times \frac{2}{3} = \frac{2}{81}$
 $\frac{2}{81} \times \frac{1}{2} = \frac{1}{81}$
 $\frac{1}{81} \times \frac{2}{3} = \frac{2}{243}$
 $\frac{2}{243} \times \frac{1}{2} = \frac{1}{243}$
 $\frac{1}{243} \times \frac{2}{3} = \frac{2}{729}$
 $\frac{2}{729} \times \frac{1}{2} = \frac{1}{729}$
 $\frac{1}{729} \times \frac{2}{3} = \frac{2}{2187}$
 $\frac{2}{2187} \times \frac{1}{2} = \frac{1}{1093.5}$
 $\frac{1}{1093.5} \times \frac{2}{3} = \frac{2}{3280.5}$
 $\frac{2}{3280.5} \times \frac{1}{2} = \frac{1}{1640.25}$
 $\frac{1}{1640.25} \times \frac{2}{3} = \frac{2}{4920.75}$
 $\frac{2}{4920.75} \times \frac{1}{2} = \frac{1}{2460.375}$
 $\frac{1}{2460.375} \times \frac{2}{3} = \frac{2}{7381.125}$
 $\frac{2}{7381.125} \times \frac{1}{2} = \frac{1}{3690.5625}$
 $\frac{1}{3690.5625} \times \frac{2}{3} = \frac{2}{11071.6875}$
 $\frac{2}{11071.6875} \times \frac{1}{2} = \frac{1}{5535.84375}$
 $\frac{1}{5535.84375} \times \frac{2}{3} = \frac{2}{16607.53125}$
 $\frac{2}{16607.53125} \times \frac{1}{2} = \frac{1}{8303.765625}$
 $\frac{1}{8303.765625} \times \frac{2}{3} = \frac{2}{24911.296875}$
 $\frac{2}{24911.296875} \times \frac{1}{2} = \frac{1}{12455.6484375}$
 $\frac{1}{12455.6484375} \times \frac{2}{3} = \frac{2}{37366.9453125}$
 $\frac{2}{37366.9453125} \times \frac{1}{2} = \frac{1}{18683.47265625}$
 $\frac{1}{18683.47265625} \times \frac{2}{3} = \frac{2}{56050.41796875}$
 $\frac{2}{56050.41796875} \times \frac{1}{2} = \frac{1}{28025.208984375}$
 $\frac{1}{28025.208984375} \times \frac{2}{3} = \frac{2}{84075.626953125}$
 $\frac{2}{84075.626953125} \times \frac{1}{2} = \frac{1}{42037.8134765625}$
 $\frac{1}{42037.8134765625} \times \frac{2}{3} = \frac{2}{126113.4404296875}$
 $\frac{2}{126113.4404296875} \times \frac{1}{2} = \frac{1}{63056.72021484375}$
 $\frac{1}{63056.72021484375} \times \frac{2}{3} = \frac{2}{189170.16064453125}$
 $\frac{2}{189170.16064453125} \times \frac{1}{2} = \frac{1}{94585.080322265625}$
 $\frac{1}{94585.080322265625} \times \frac{2}{3} = \frac{2}{283755.240966796875}$
 $\frac{2}{283755.240966796875} \times \frac{1}{2} = \frac{1}{141877.6204833984375}$
 $\frac{1}{141877.6204833984375} \times \frac{2}{3} = \frac{2}{425632.8614501953125}$
 $\frac{2}{425632.8614501953125} \times \frac{1}{2} = \frac{1}{212816.43072509765625}$
 $\frac{1}{212816.43072509765625} \times \frac{2}{3} = \frac{2}{638449.29217529296875}$
 $\frac{2}{638449.29217529296875} \times \frac{1}{2} = \frac{1}{319224.646087646484375}$
 $\frac{1}{319224.646087646484375} \times \frac{2}{3} = \frac{2}{957673.938262939453125}$
 $\frac{2}{957673.938262939453125} \times \frac{1}{2} = \frac{1}{478836.9691314697265625}$
 $\frac{1}{478836.9691314697265625} \times \frac{2}{3} = \frac{2}{1436510.9073944091796875}$
 $\frac{2}{1436510.9073944091796875} \times \frac{1}{2} = \frac{1}{718255.45369720458984375}$
 $\frac{1}{718255.45369720458984375} \times \frac{2}{3} = \frac{2}{2154766.36109161376953125}$
 $\frac{2}{2154766.36109161376953125} \times \frac{1}{2} = \frac{1}{1077383.180545806884765625}$
 $\frac{1}{1077383.180545806884765625} \times \frac{2}{3} = \frac{2}{3232149.541637420754296875}$
 $\frac{2}{3232149.541637420754296875} \times \frac{1}{2} = \frac{1}{1616074.7708187103771484375}$
 $\frac{1}{1616074.7708187103771484375} \times \frac{2}{3} = \frac{2}{4848224.3124561311314453125}$
 $\frac{2}{4848224.3124561311314453125} \times \frac{1}{2} = \frac{1}{2424112.15622806556572265625}$
 $\frac{1}{2424112.15622806556572265625} \times \frac{2}{3} = \frac{2}{7272336.46868419669716796875}$
 $\frac{2}{7272336.46868419669716796875} \times \frac{1}{2} = \frac{1}{3636168.234342098348583984375}$
 $\frac{1}{3636168.234342098348583984375} \times \frac{2}{3} = \frac{2}{10908504.703026295045751953125}$
 $\frac{2}{10908504.703026295045751953125} \times \frac{1}{2} = \frac{1}{5454252.3515131475228759765625}$
 $\frac{1}{5454252.3515131475228759765625} \times \frac{2}{3} = \frac{2}{16362757.0545394425686279296875}$
 $\frac{2}{16362757.0545394425686279296875} \times \frac{1}{2} = \frac{1}{8181378.52726972128431396484375}$
 $\frac{1}{8181378.52726972128431396484375} \times \frac{2}{3} = \frac{2}{24544135.58180916385294189453125}$
 $\frac{2}{24544135.58180916385294189453125} \times \frac{1}{2} = \frac{1}{12272067.790904581926470947265625}$
 $\frac{1}{12272067.790904581926470947265625} \times \frac{2}{3} = \frac{2}{36816203.372713745779412841796875}$
 $\frac{2}{36816203.372713745779412841796875} \times \frac{1}{2} = \frac{1}{18408101.6863568728897064208984375}$
 $\frac{1}{18408101.6863568728897064208984375} \times \frac{2}{3} = \frac{2}{55224305.0590706186691192626953125}$
 $\frac{2}{55224305.0590706186691192626953125} \times \frac{1}{2} = \frac{1}{27612152.52953530933455963134765625}$
 $\frac{1}{27612152.52953530933455963134765625} \times \frac{2}{3} = \frac{2}{82836457.58860592790367889404296875}$
 $\frac{2}{82836457.58860592790367889404296875} \times \frac{1}{2} = \frac{1}{41418228.794302963951839447021484375}$
 $\frac{1}{41418228.794302963951839447021484375} \times \frac{2}{3} = \frac{2}{124254686.382908891855518341064453125}$
 $\frac{2}{124254686.382908891855518341064453125} \times \frac{1}{2} = \frac{1}{62127343.1914544459277591705322265625}$
 $\frac{1}{62127343.1914544459277591705322265625} \times \frac{2}{3} = \frac{2}{186382029.5743633377832775115966796875}$
 $\frac{2}{186382029.5743633377832775115966796875} \times \frac{1}{2} = \frac{1}{93191014.78718166889163875579833984375}$
 $\frac{1}{93191014.78718166889163875579833984375} \times \frac{2}{3} = \frac{2}{279573044.36154500667491626739501953125}$
 $\frac{2}{279573044.36154500667491626739501953125} \times \frac{1}{2} = \frac{1}{139786522.180772503337458133697509765625}$
 $\frac{1}{139786522.180772503337458133697509765625} \times \frac{2}{3} = \frac{2}{419359566.5423175099923744010925296875}$
 $\frac{2}{419359566.5423175099923744010925296875} \times \frac{1}{2} = \frac{1}{209679783.27115875499618720054626484375}$
 $\frac{1}{209679783.27115875499618720054626484375} \times \frac{2}{3} = \frac{2}{629039349.81347626498856160163879453125}$
 $\frac{2}{629039349.81347626498856160163879453125} \times \frac{1}{2} = \frac{1}{314519674.906738132494280800819397265625}$
 $\frac{1}{314519674.906738132494280800819397265625} \times \frac{2}{3} = \frac{2}{943559024.720214397482842402458191796875}$
 $\frac{2}{943559024.720214397482842402458191796875} \times \frac{1}{2} = \frac{1}{471779512.3601071987414212012290958984375}$
 $\frac{1}{471779512.3601071987414212012290958984375} \times \frac{2}{3} = \frac{2}{1415338537.0803215962242636036872876953125}$
 $\frac{2}{1415338537.0803215962242636036872876953125} \times \frac{1}{2} = \frac{1}{707669268.54016079811213180184364384765625}$
 $\frac{1}{707669268.54016079811213180184364384765625} \times \frac{2}{3} = \frac{2}{2123007805.62048239433639540553093154296875}$
 $\frac{2}{2123007805.62048239433639540553093154296875} \times \frac{1}{2} = \frac{1}{1061503902.810241197168197702765465771484375}$
 $\frac{1}{1061503902.810241197168197702765465771484375} \times \frac{2}{3} = \frac{2}{3184511708.430723594304593108296397314453125}$
 $\frac{2}{3184511708.430723594304593108296397314453125} \times \frac{1}{2} = \frac{1}{1592255854.2153617971522965541481986572265625}$
 $\frac{1}{1592255854.2153617971522965541481986572265625} \times \frac{2}{3} = \frac{2}{4776767562.6460853943068896624445959716796875}$
 $\frac{2}{4776767562.6460853943068896624445959716796875} \times \frac{1}{2} = \frac{1}{2388383781.32304269715344483122229798583984375}$
 $\frac{1}{2388383781.32304269715344483122229798583984375} \times \frac{2}{3} = \frac{2}{7165151343.96912809146033449366689395751953125}$
 $\frac{2}{7165151343.96912809146033449366689395751953125} \times \frac{1}{2} = \frac{1}{3582575671.984564045730167246833446978759765625}$
 $\frac{1}{3582575671.984564045730167246833446978759765625} \times \frac{2}{3} = \frac{2}{10747727015.953692137190511740490340936279296875}$
 $\frac{2}{10747727015.953692137190511740490340936279296875} \times \frac{1}{2} = \frac{1}{5373863507.9768460685952558702451704681396484375}$
 $\frac{1}{5373863507.9768460685952558702451704681396484375} \times \frac{2}{3} = \frac{2}{16121590523.9305382057856755107355114044189453125}$
 $\frac{2}{16121590523.9305382057856755107355114044189453125} \times \frac{1}{2} = \frac{1}{8060795261.96526910289283777536775570220947265625}$
 $\frac{1}{8060795261.96526910289283777536775570220947265625} \times \frac{2}{3} = \frac{2}{24182385785.89580730867813326103276710662841796875}$
 $\frac{2}{24182385785.89580730867813326103276710662841796875} \times \frac{1}{2} = \frac{1}{12091192892.947903654339066630516383553314208984375}$
 $\frac{1}{12091192892.947903654339066630516383553314208984375} \times \frac{2}{3} = \frac{2}{36273578678.843709062917199891549150659942626953125}$
 $\frac{2}{36273578678.843709062917199891549150659942626953125} \times \frac{1}{2} = \frac{1}{18136789339.4218545314585999457745753299713134765625}$
 $\frac{1}{18136789339.4218545314585999457745753299713134765625} \times \frac{2}{3} = \frac{2}{54410368018.265709062917199891549150659942626953125}$
 $\frac{2}{54410368018.265709062917199891549150659942626953125} \times \frac{1}{2} = \frac{1}{27205184009.1328545314585999457745753299713134765625}$
 $\frac{1}{27205184009.1328545314585999457745753299713134765625} \times \frac{2}{3} = \frac{2}{81615552027.4005635943737998373372598893793804296875}$
 $\frac{2}{81615552027.4005635943737998373372598893793804296875} \times \frac{1}{2} = \frac{1}{40807776013.70028179718689991866862994446896901484375}$
 $\frac{1}{40807776013.70028179718689991866862994446896901484375} \times \frac{2}{3} = \frac{2}{122423328041.1008453943737998373372598893793804296875}$
 $\frac{2}{122423328041.1008453943737998373372598893793804296875} \times \frac{1}{2} = \frac{1}{61211664020.55042269718689991866862994446896901484375}$
 $\frac{1}{61211664020.55042269718689991866862994446896901484375} \times \frac{2}{3} = \frac{2}{183634992061.65126809156059975590288983340790704296875}$
 $\frac{2}{183634992061.65126809156059975590288983340790704296875} \times \frac{1}{2} = \frac{1}{91817496030.825634045780299877951444916703953521484375}$
 $\frac{1}{91817496030.825634045780299877951444916703953521484375} \times \frac{2}{3} = \frac{2}{275452488092.476902137340899633854334750111860564453125}$
 $\frac{2}{275452488092.476902137340899633854334750111860564453125} \times \frac{1}{2} = \frac{1}{137726244046.2384510686704498169271673750559302822265625}$
 $\frac{1}{137726244046.2384510686704498169271673750559302822265625} \times \frac{2}{3} = \frac{2}{413178732138.7153532058113494507815021251677908466796875}$
 $\frac{2}{413178732138.7153532058113494507815021251677908466796875} \times \frac{1}{2} = \frac{1}{206589366069.35767660290567472539075106258389542333984375}$
 $\frac{1}{206589366069.35767660290567472539075106258389542333984375} \times \frac{2}{3} = \frac{2}{619768098208.07302980871682417617125318775168627001953125}$
 $\frac{2}{619768098208.07302980871682417617125318775168627001953125} \times \frac{1}{2} = \frac{1}{309884049104.036514904358412088085626593875843135009765625}$
 $\frac{1}{309884049104.036514904358412088085626593875843135009765625} \times \frac{2}{3} = \frac{2}{929652147712.109544713065236264256879781627529405029296875}$
 $\frac{2}{929652147712.109544713065236264256879781627529405029296875} \times \frac{1}{2} = \frac{1}{464826073856.0547723565326181321284398908137647025146484375}$
 $\frac{1}{464826073856.0547723565326181321284398908137647025146484375} \times \frac{2}{3} = \frac{2}{1394478221568.16431709459785439638529967248129410754396875}$
 $\frac{2}{1394478221568.16431709459785439638529967248129410754396875} \times \frac{1}{2} = \frac{1}{697239110784.082158547298927198164749836240647053771984375}$
 $\frac{1}{697239110784.082158547298927198164749836240647053771984375} \times \frac{2}{3} = \frac{2}{2091717332352.2464756418967815944842970887219411613159375}$
 $\frac{2}{2091717332352.2464756418967815944842970887219411613159375} \times \frac{1}{2} = \frac{1}{1045858666176.12323782094839079724214854436097058065796875}$
 $\frac{1}{1045858666176.12323782094839079724214854436097058065796875} \times \frac{2}{3} = \frac{2}{3137575998528.37071346284517159472644563308291174197390625}$
 $\frac{2}{3137575998528.37071346284517159472644563308291174197390625} \times \frac{1}{2} = \frac{1}{1568787999264.185356731422585797363222816541455870986953125}$
 $\frac{1}{1568787999264.185356731422585797363222816541455870986953125} \times \frac{2}{3} = \frac{2}{4706363997792.57606819426775739208966844962436761296084375}$
 $\frac{2}{4706363997792.57606819426775739208966844962436761296084375} \times \frac{1}{2} = \frac{1}{2353181998896.288034097133878696044834224812183806480421875}$
 $\frac{1}{2353181998896.288034097133878696044834224812183806480421875} \times \frac{2}{3} = \frac{2}{7059545997792.57606819426775739208966844962436761296084375}$
 $\frac{2}{7059545997792.57606819426775739208966844962436761296084375} \times \frac{1}{2} = \frac{1}{3529772998896.288034097133878696044834224812183806480421875}$
 $\frac{1}{3529772998896.288034097133878696044834224812183806480421875} \times \frac{2}{3} = \frac{2}{10589318997792.57606819426775739208966844962436761296084375}$
 $\frac{2}{10589318997792.57606819426775739208966844962436761296084375} \times \frac{1}{2} = \frac{1}{5294659498896.288034097133878696044834224812183806480421875}$
 $\frac{1}{5294659498896.288034097133878696044834224812183806480421875} \times \frac{2}{3} = \frac{2}{15883978497792.57606819426775739208966844962436761296084375}$
 $\frac{2}{15883978497792.57606819426775739208966844962436761296084375} \times \frac{1}{2} = \frac{1}{7941989248896.288034097133878696044834224812183806480421875}$
 $\frac{1}{7941989248896.288034097133878696044834224812183806480421875} \times \frac{2}{3} = \frac{2}{23825967747792.57606819426775739208966844962436761296084375}$
 $\frac{2}{23825967747792.57606819426775739208966844962436761296084375} \times \frac{1}{2} = \frac{1}{11912983873896.288034097133878696044834224812183806480421875}$
 $\frac{1}{11912983873896$