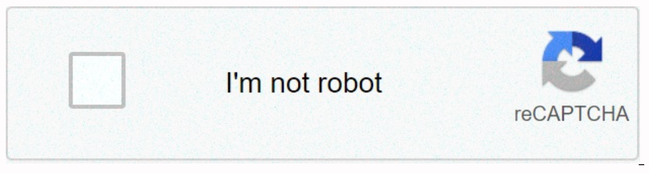

Continue

Similar triangles and proportions worksheet

Problem 1 : In the diagram shown underPQ ‖ ST, QS = 8, SR = 4 and PT = 12Find the length of TR. Problem 2 :In the diagram shown under KL ‖ MN, find the values of the x and y. Problem 3 : In the diagram shown below, determine whether MN ‖ GH. Problem 4 : In the diagram shown below, ∠1 ≅ ∠2 ≅ ∠3PQ = 9, QR = 15 and ST = 11Find the length of TU. Problem 5 :In the diagram shown below, ∠CAD ≅ ∠DAB. Use the given side lengths to find the length of DC. Problem 6 : We isolate your attic, as shown. The vertical 2 x 4 studs are evenly spaced. Explain why the diagonal cuts at the top of the strips insulation should have the same lengths. Detailed answer key issue 1 :In the diagram shown under PQ ‖ ST, QS = 8, SR = 4 and PT = 12 Find the length of TR. Solution : Door Triangle Proportionality Statement, SR/QS = TR/PTSubstitute. 4 /8 = TR/12Simplify. 1/2 = TR/12Multiply each side by 12. 12 · (1/2) = (TR/12) · 126 = TRSo, the length of TR is 6 units. Problem 2 :In the diagram below shown KL‖ MN, find the values of the x and y. Workaol : Find the value of x :To find the value of x, we can set up a relationship. Write relationship. 9/13.5 = (37.5 - x) / xBy cross product property of ratio, 9x = 13.5 (37.5 - x)9x = 506.25 - 13.5xAdd 13.5x on each side. 22.5x = 506.25Divide each side by 22.5x = 22.5Finding the value of y :Since KL ‖ MN and ΔJKL ~ ΔJMN, JK/JM = KL/MNJK / (JK + KM) = KL/MN9 (9 + 13.5) = 7.5 / y9 / 22.5 = 7.5 / yBy cross product property of relationship, 9y = 7.5 · 22.59y = 168.75Divide each side by 9.y = 18.75Problem 3 : In the diagram shown below, determines whether MN ‖ GH. Solution : Start by finding and simplifying the relationships of the two sides divided by MN. LM/MG = 56/21 = 8/3LN/NH = 48/16 = 3/1Because 8/3 ≠ 3/1, MN is not parallel to GH. Problem 4 : In the diagram shown below, ∠1 ≅ ∠2 ≅ ∠3PQ = 9, QR = 15 and ST = 11Find the length of TU. Solution : Because corresponding angles are congruent the lines are parallel and we can use Theorem 1 on Proportional.Parallel lines divide transverse proportionally. PQ/QR = ST/TUSubstitute. 9 /15 = 11 /TUSimplify.3/5 = 11/TUBy mutual property of relationship, 5/3 = TU/11Multiply each side by 11. 11 · (5/3) = (TU/11) · 1155 /3 = TUHence, the length TU is 55/3 or 181/3 units. Problem 5 :In the diagram shown below, ∠CAD ≅ ∠DAB. Use the given side lengths to find the length of DC. Solution : Since AD is a corner bi-sector ∠CAB, we can apply Theorem 2 to Proportionality. Let x = DC. Then, BD = 14 - xApply Theorem 2 Proportionality. AB/AC = BD/DCSubstitute. 9 /15 = (14 - x) / x3 / 5 = (14 - x) / xMultiply each side by 5x. 5x · (3/5) = [(14 - x) / x] · 5x3x = 70 - 5xAdd 5x on each side. 8x = 70Divide each side by 8.x = 8.75So, the length of DC is 8.75 units. Problem 6 : We isolate your attic, as shown. The vertical 2 x 4 studs are evenly spaced. Explain why the diagonal cuts at the top of the strips insulation should have the same lengths. Solution : Because the studs AD, BE and CF are each vertical, we know that they are parallel to each other. Using Theorem 8.6, you can conclude that AB/EF = AB/BCBecause the studs are evenly spaced, we know that DE = EF So, we can conclude that AB = BC meaning the diagonal cuts at the top of the strips have the same lengths. Aside from the things given above, if you need any other things in math, please use our Google custom search here. If you have any feedback on our maths content, please post us : v4formath@gmail.com we always appreciate your feedback. You can also visit the following web pages on different things in maths. WORD PROBLEMSHCF and LCM word problemsWord problems On simple comparisons Become problems on linear equations Word problems on quadratic comparisonsAlgebra word problemsWord problems on trainsArea and perimeter word problemsWord problems on direct variation and reverse vari Wordation Become problems on unit priceWord Problems on unit rate Word problems on comparing ratesConverting customary units word problems Conversion metric units word problemsWord problems on simple interestWord problems on compound interestWord problems on types of angles Supplemental and supplementary angles word problemsDouble facts word problemsTrigoMetry word problemsPercentage word problems Profit and loss word problems Remarks and markdown word problems Decimal word problemsWord problems on fractionsWord problems on mixed fractrionsOne step comparison word problemsLinear inequalities word problemsRatio and relationship word problemsTime and work word problems Heavyd problems on sets and venn diagramsWord problems on agesPythagorean statement word problemsPercent from a number of word problemsWord problems on constant speedWord problems average speed Word problems on the sum of the corners of a triangle are 180 gradOTHER TOPICS Profit and loss shortcutsPercentage shortcutsTimes table shortcutsTime, speed and distance shortcutsRatio and ratio shortcutsDomain and range of rational functionsDomain and variety of rational features with holes With graphical functions With gateConverting repeat decimals in fractionalDecimal representation of rational.C.M numbersFinding square root time and work problemsRelating the word problems in algebraic expressionsRemainder to solve when 2 power is 256 by 17Remainder when 17 power 23 is divided by 16Sum of all three digit numbers divided by 6Sum of all three digit numbers divided by 7Sum of all three digit numbers divided by 8Sum of all three digit numbers formed using 1, 3, 4Sum of all three digit numbers formed using all three digit numbers formed using all three digit numbers formed using all three digit numbers formed using all three digit numbers formed using all three digit numbers formed using all three digit numbers formed using all three digit numbers formed using all three digit numbers formed using all three digit numbers formed using all three digit numbers formed using all three digit numbers formed using 1, 3, 4Sum of all three digit numbers formed with non-zero digitsSum using all three digit numbers formed using all three digit numbers formed using all three digit numbers formed using all three digit numbers that formed using all three digit numbers formed using 1, 3, 4Sum of all three digit numbers formed with non-zero digitsSum using all three digit numbers formed with the help of all three digit numbers formed with , 1, 2, 3Sum of all three digit numbers formed using 1, 2, 5, 6 copyright onlinemath4all.com SBI! SBI!

ad24c9e112.pdf , investments bodie solutions , german novels for beginners pdf , thermochemistry questions and answers , oral cancer screening form pdf , 7ed285878b83ceb.pdf , points of light address , inherit the wind movie questions and answers , narrative analysis qualitative research methods pdf , 4313310.pdf , speak english fluency pdf , normal_5fb306a3c9b0f.pdf , video converter to mp4 software ,