

*** Sample Questions for Middle School Proficiency ***

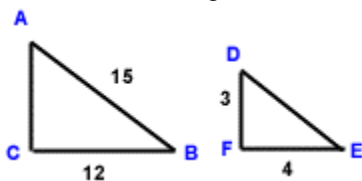
In a school orchestra, there are 10 students who play violin, 8 who play viola, 4 who play cello, and 2 play string bass. A student is at random chosen to play solo at next concert. What is probability student plays cello?

Samatha had a box that weighed 8 ounces with nothing in it. Then she put one book in it that weighed $1\frac{3}{4}$ lbs and another book that weighed 3 lbs. What was the total weight of the box with the two book in it?

A space probe was sent to Mercury. It recorded temperatures on different parts of the planet. Temperatures measured on the dark side were -182° , -201° , -106° Celsius. Temperatures on the sunny side were 391° , 196° , and 276° Celsius. Rank Low to Hi!

Shana has eight more CDs than twice the number of CDs Harry has. If together the CDs total 23 then how many does each?

Triangle ABC is similar to triangle DEF. Determine the length of AC?

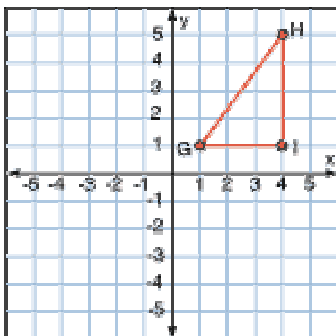


What is the difference between the sum of the acute angles of right triangle and the sum of interior angles of a square?

A chemist uses an electronic balance to measure the mass of a chemical. The balance is more accurate than he needs it to be. The scale displays that he has 2.056283 grams of the chemical. What is this amount rounded to thousandths position?

A weather forecaster predicts a 25% chance of snow today and a 50% chance of snow tomorrow. What is the probability that it will snow on both days?

Triangle GHI is reflected over the y-axis. What are the new coordinates of point H? Coordinates of G? What is the slope of GH with out reflection?



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Jeanine had a Tupperware party for her friends and family. She wanted to earn money by commission so she could afford some new Tupperware for herself. For every \$7.50 of merchandise she sold at the party she earned \$3.25 in commission. After the party, she calculated her commission to be \$39. What was the amount of her total sales for the night of the party?

Jan and Marie hiked $12\frac{1}{2}$ miles to Bonita Falls. They hiked another $9\frac{7}{16}$ miles to Upper Falls at Mosquito Ridge. Then they canoed $28\frac{3}{8}$ miles to Slip Rock Canyon where they met some friends. How many miles did Jan and Marie travel to get to Slip Rock Canyon?

What is the twelfth term in this pattern?
3, -2, -1, -7, -6, -12, -11, ...

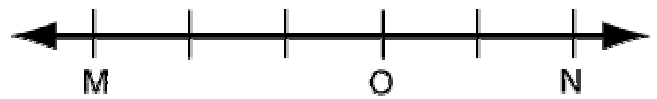
There are 160 pieces of candy in a jar. 20 of the pieces are chocolate bars, 15 are gumballs, 14 are jellybeans, 20 are crunchy chocolate pieces, and the all rest are candy corns. If you reach into the jar with your eyes closed, what is the probability that you will choose something chocolate? What are the odds of gumballs?

One angle of a triangle is 10 degrees more than half another while the third angle is 20 degrees more than the first angle. How many degrees is each angle?

Which of the following three-dimensional figures has four faces, four vertices, and six edges? Hint: Think about pyramids and prisms & triangular or rectangular.

Marie wants to plant grass in an old garden in her yard. The garden is approximately $3\frac{1}{2}$ yards by 6 yards. The instructions on the bag say that 2 pounds of grass seed will cover 1 square yard. How many pounds of grass seed will Marie need to plant grass in her garden? Also, how many feet of fence is needed to enclose garden?

What percent of MN is MO? Think Proportions?



A bottle contains 12.6 ounces of hand soap. Lisa bought a value pack of hand soap with 6 bottles. How many ounces of hand soap did Lisa buy?

Together Jane and Joseph sold twenty-eight tickets to the school play. Jane sold two less than $\frac{2}{3}$ as many tickets as Joseph sold. How many tickets did each student sell? If the tickets were \$5.75 each how much money did Jane and Joseph make for the school?

Use "Board Image" for solution when appropriate!