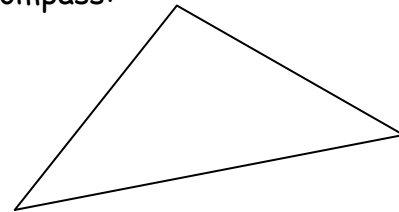


THINK TANK PROBLEMS

A store sells three different hats. The Angels hat sells for $\frac{1}{3}$ the cost of the Boston Red Sox hat and $\frac{1}{2}$ the cost of the Cubs hat. Write a function that gives the cost of the Angels Hat in terms of the Boston Red Sox hat. Write a function that gives the cost of the Angels hat in terms of the Cubs hat. Write a function that gives the cost of the Cubs hat in terms of the Boston Red Sox hat.

A pre-school wants to increase of their square sandbox. The length of the side of the sandbox is x feet. If the school wants to increase each side by 4 feet, how will the perimeter and area of the sandbox change?

Construct a regular quadrilateral with measurement tools (compass, protractor, and ruler). Measure each angle and side and record its measure. Construct a scalene triangle using measurement tools; measure each angle and side and record its measure. Construct a triangle congruent to the following drawing using a protractor and compass:



The following is the amount of money Catherine earned babysitting each month for the past year. \$42, \$88, \$24, \$67, \$15, \$44, \$32, \$38, \$32, \$29, \$39, \$30. If in her last 2 months of babysitting, she earned \$50 and \$55 instead of \$39 & \$30, how would that effect the mean and median of her earnings? How can you change the amount of money she earned in more than one month in order to keep the mean the same, but change the median?

Jake decided to put up fliers for his dog walking business in addition to telling friends and family about it. The following is how many phone calls he received after hanging up the fliers:

Fliers	Phone calls
0	4
6	10
8	13
10	14
14	15

How many phone calls would you expect Jake to receive if he hung up 9 fliers? What about 30 fliers? Justify your answer.

According to the data, should Jake continue to hang up fliers? Is the effort worth the rewards? Justify your reasoning.