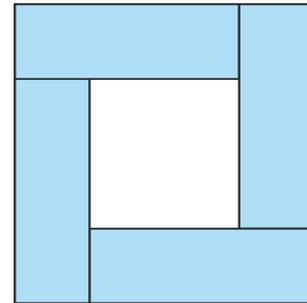
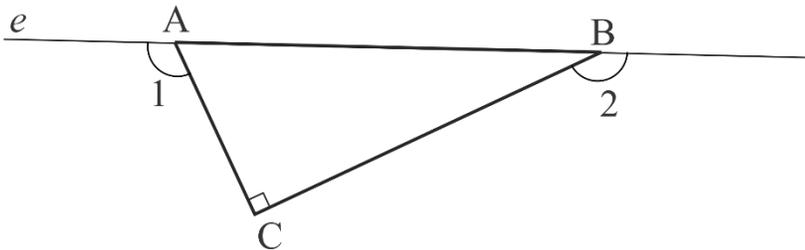


Math 5b, homework 19.

1. Four identical rectangles placed as shown on the picture. The perimeter of each rectangle is 16 cm. What are the perimeters of squares formed by rectangles ?



2. Triangle ABC is a right triangle. Points A and B belong to the line e . What is the sum of the angles 1 and 2?



3. A merchant had a certain sum of money. In the first year he spent 100 dollars, and to the remaining amount he added one third of it. In the following year he again spent 100 dollars and increased the remaining sum by one third of it. In the third year he again spent 100 dollars. After adding one third of the remainder, his capital became twice the original amount. What was the original capital?

4. Solve the equations:

a. $\frac{-3}{9 - 4a} = \frac{40}{200};$

b. $\frac{1 - 2b}{4} = \frac{0.8}{0.5};$

c. $\frac{5 + 3x}{12} = \frac{4x - 3}{18};$

d. $\frac{0.9}{7 + 5y} = \frac{0.2}{y - 4};$

5. In a school, 50% of all students study French, $\frac{2}{7}$ of all students study English, and the remaining 45 study German. How many total students are in this school, given that each student studies exactly one language?

6. Which digits should be placed instead of the asterisks to make the problem correct?

$$\begin{array}{r}
 * * 5 \\
 \times 4 * \\
 \hline
 3 * * \\
 + * 2 * * \\
 \hline
 1 * * * *
 \end{array}$$

7. Evaluate:

a. $7\frac{2}{3} \cdot \left(-\frac{9}{11}\right) : 4.6 \cdot (-2.75) : 3\frac{3}{4}$ (answer is 1)

b. $\left(-0.5 : 1.25 + 1\frac{2}{5} : \left(-1\frac{4}{7}\right) - \frac{10}{11}\right) \cdot (-2.5)$ (answer is $5\frac{1}{2}$)