

Math Olympiad Beginner
Homework 5

Name _____

1. Tracy's Trophies charges by the letter for engraving. There is one fee for each vowel and a different fee for each consonant. CAROL costs \$31 to engrave. GABRIEL costs \$43 to engrave. How many dollars does BRIDGET cost to engrave? [45]
2. Admission to the local movie theater is \$3 for each child and \$7 for each adult. A group of 12 people pay \$64 admission. How many children are in this group? [5]
3. One hat and two shirts cost \$21. Two hats and one shirt cost \$18. Megan has exactly enough money to buy one hat and one shirt. How much money does Megan have? [13]
4. A toll bridge charges \$4 for a car and \$6 for a truck. One day 200 of these vehicles crossed the bridge and paid a total of \$860 in tolls. How many of these vehicles were trucks? [30]
5. One loaf of bread and six rolls cost \$1.80. At the same prices, two loaves of bread and four rolls cost \$2.40. How much does one loaf of bread cost? [\$0.90]
6. The sum of the ages of three children is 32. The age of the oldest is twice the age of the youngest. The ages of the two older children differ by three years. What is the age of the youngest child? [7]
7.

Start

multiply
by 5

Subtract
8

Divide
by 3

End
14

[10]
8.

Mrs. Allen spends $\frac{3}{5}$ of her money at the grocery store. Next she spends $\frac{3}{5}$ of her remaining money at the gas station. She then has \$8.00 left. With what total number of dollars did Mrs. Allen start? [50]
9. A woman spent two-third of her money. She lost two-third of the remainder and then had \$4 left. With how much money did she start? [36]
10. I spent $\frac{3}{5}$ of my money in store A. I then spent $\frac{3}{4}$ of what remained in store B. When I left store B, I had \$5. how much money did I have when I entered store A? [50]

11. Mrs. Winthrop went to a store, spent half of her money and then \$10 more. She went to a second store, spent half of her remaining money and then \$10 more. But she then had no money left. How much money did she have to begin with when she went to the first store? [60]

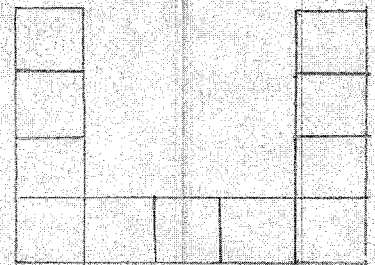
12. Tom went to a store and spent one-third of his money. He went to a second store where he spent one-third of what remained, and then had \$12 when he left. How much money did he have to begin with at the first store? [27]

13. Mr. Rogers went to a store where he spent one-third of his money and then \$24 more. He then went to another store when he spent two-third of his remaining money and then \$24 more. He then had no money left. How much did he have when he entered the first store? [144]

14.

The U-shaped figure contains 11 squares of the same size. The area of the U-shaped figure is 176 square inches. How many inches are in the perimeter of the U-shaped figure?

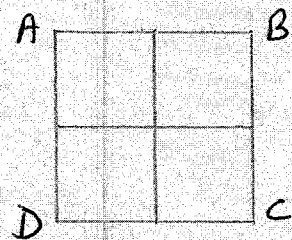
[96]



15.

ABCD is a square whose sides are each 2 units long. The length of the shortest path from A to C following the lines of the diagram is 4 units. How many different shortest paths are there from A to C?

[6]



16.

The square piece of paper is folded in half as shown and then cut into two rectangles along the fold. The perimeter of each of the two rectangles is 18 inches. What is the perimeter of the original square?

[24]

