

Math 4a, Homework 5.

1. Two buses leave from the same bus station following two different routes. For the first one it takes 48 minutes to complete the roundtrip route. For the second one it takes 1 hour and 12 minutes to complete the round-trip route. How much time will it take for the buses to meet at the bus station for the first time after they have departed for their routes at the same time?

2. A florist has 36 roses, 90 lilies, and 60 daisies. What is the largest amount of bouquets he can create from these flowers evenly dividing each kind of flowers between them?



3. Mary has a rectangular backyard with sides of 48 and 40 yards. She wants to create square flower beds, all of equal size, and plant different kind of flowers in each flower bed. What is the largest possible size of her square flower bed?

4. Dunno boasted ability to multiply in the mind. To test it, Doono suggested writing some number, multiplying its digits, and saying the result. "2178," Dunno immediately blurted out, only having had time to write down the number. "It cannot be," - replied, thinking, Doono. How did he detect the error without knowing the source number?



(Dunno and Doono are main characters in the book *The Adventures of Dunno and his Friends*, by Nikolay Nosov)

5. Rebecca wants to decorate the box with a birthday present for her friend Alice with a ribbon as shown in the picture. How long should the ribbon be if 90 cm should be left for the ends and the bow?

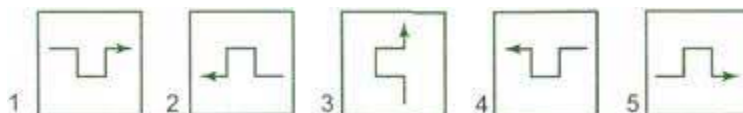


6. Set $A = \{2, 5, 6, 8, 12, 19, 24, 32, 45, 47\}$.

Write subsets of the set A

- a. of prime numbers
 - b. of composite numbers
 - c. divisors of 24
 - d. not multiples of 2
 - e. multiples of 3 and 5
 - f. multiples of 3 or multiples of 5
 - g. divisors of 8 or divisors of 12
 - h. divisors of 8 and 12.
7. Find GCD (GCF) of
- a. 420 and 450,
 - b. 810, 945 and 1125
8. Find LCM of
- a. 8 and 12
 - b. 15, 18, and 21

9. Find three identical cards (the other side of the cards are blank).



10. Draw 3 different angles. Measure them, use a protractor and a ruler.

11. Draw angles of 32° , 45° , 58° , 125° , 165° , use a protractor and a ruler.