27/02/2016

LESSON 7: MONTHLY TEST

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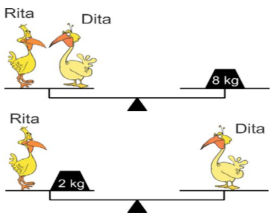
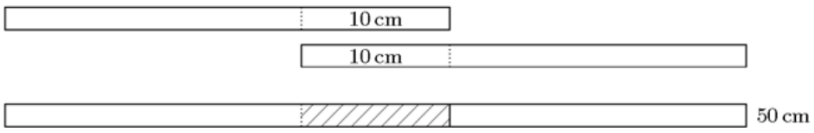
P1. The two pictures of the balanced scales show the birds Rita and Dita.



How much does Dita weigh?

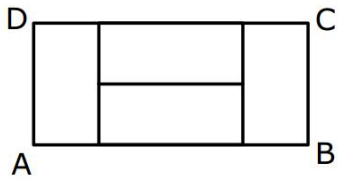
P2. Alva has 4 paper strips of the same length. She glues 2 of them together with a 10 cm overlap, and gets a strip 50 cm long.



With the other two paper strips, she wants to make a 56 cm long strip. How long should the overlap be?

P3. Nine flowers are planted in a row, same distance apart between any two adjacent flowers. The distance between the first and the third flower is 60cm. What is the distance between the first and the last flower?

P4. In the picture, the rectangle ABCD is constructed from four identical rectangles. If the length of the segment BC is 1 cm, what is the length of the segment AB?

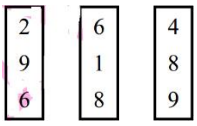


P5. The figure shows an addition where the numbers are coded by letters. Equal letters represent equal digits, and different letters represent different digits. Which digit does the letter X represent?

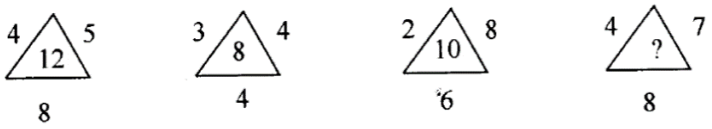
P6. In a bag there are 3 green apples, 5 yellow apples, 7 green pears and 2 yellow pears. Simon randomly is taking fruits out of the bag one by one. How many fruits must he take out in order to be certain that he has at least one apple and one pear of the same colour?

P7. A man standing upside down saw in a mirror a woman wearing a shirt with a number as shown below. What is the actual number on the woman's shirt?

P8. There are three 1 by 3 cards, each containing three digits in a vertical column. If these three cards are placed side by side as shown in the diagram below, we can read off three three-digit numbers: 264, 918 and 689. What is the smallest three-digit number that can be obtained by rearranging the order of the cards?



P9. Following the pattern, what value would "?" be?



P10. Find the sum of the number pattern below:

1 2 3 4 …. …. …. 30

2 3 4 5 … …. … 31

3 4 5 6 … …. … 32

…

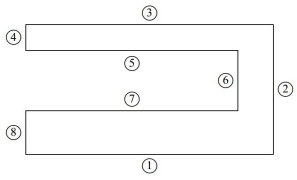
30 31 32 33 … … … 59

P11. How many arrangements of the letters in the word BEGINNING have an N at the beginning?

P12. A pencil case contains 25 pens that are red or blue. Of these, 10 are blue and 9 do not work. How many of the blue pens do not work if there are 6 red pens that do work?

P13. Some students form a rectangle. Joseph is in the fourth row if we count from the front and in the seventh row if we count from the back. He is in the third column if we count from left and in the ninth column if we count from the right. How many students are there?

P14. The following figure is composed of eight line segments. At the intersection of every two segments is a right angle, and each line segment is marked with a number. The easiest method to find the perimeter of the figure is by measuring three segments in the figure. What is the smallest three-digit number that is formed by the corresponding numbers of the three segments?



P15. Let △, □ and ☆ represent three distinct digits. If 7△90901 is larger than 79□9001 , which is in turn larger than 798900☆, what is the value of △ + □ + ☆?