**JA010506 Cammin facendo**

You move from P to Q a long the lignes.

You can only move downwards.

How many different ways are there from P to Q.

## **JA010607 Quadrato magico**

|  |  |  |
| --- | --- | --- |
| **** |  |  |
|  | **** | **** |
|  |  |  |

Anna had placed 9 pieces numbered from 1 to 9 on the draughtboard as you can see in the picture, in order that the sum of every line, every column and each of two diagonal lines is always the same.

Unfortunately some pieces slipped out…..Help Anna to put the slipped pieces in the right place.

## **JA010708 Il labirinto**



uscita

entrata

Enter the labyrinth. Walk through the rooms

and add up the numbers.

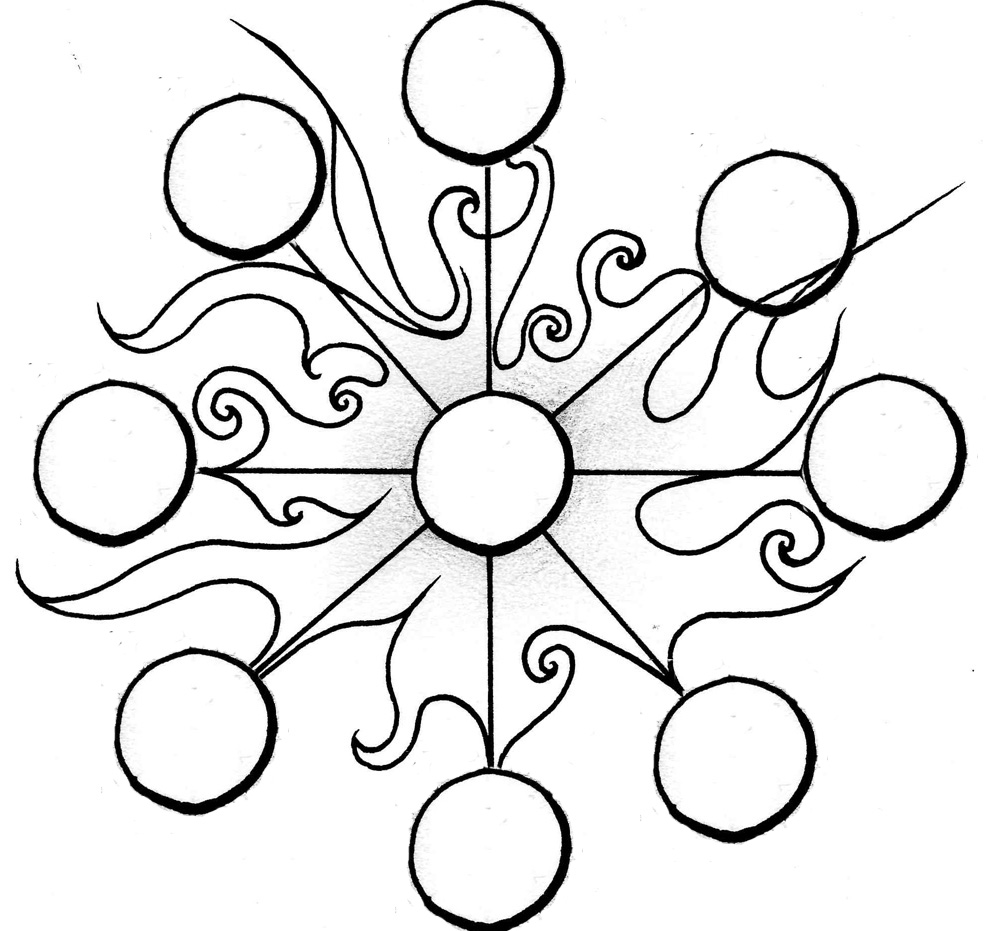
Draw the itinerary that gives you the smallest addition

Si allega il file <fig-JA010809-puzzles> con l'immagine ingrandita.

**JA010809 Puzzle**

Put the pieces of the jigsaw in the right place.

The sum must be correct.



JA010910 Sole magico

Write the numbers from 10 to 18 in the circles.

When you add up the three numbers of a line, the result is always 42.

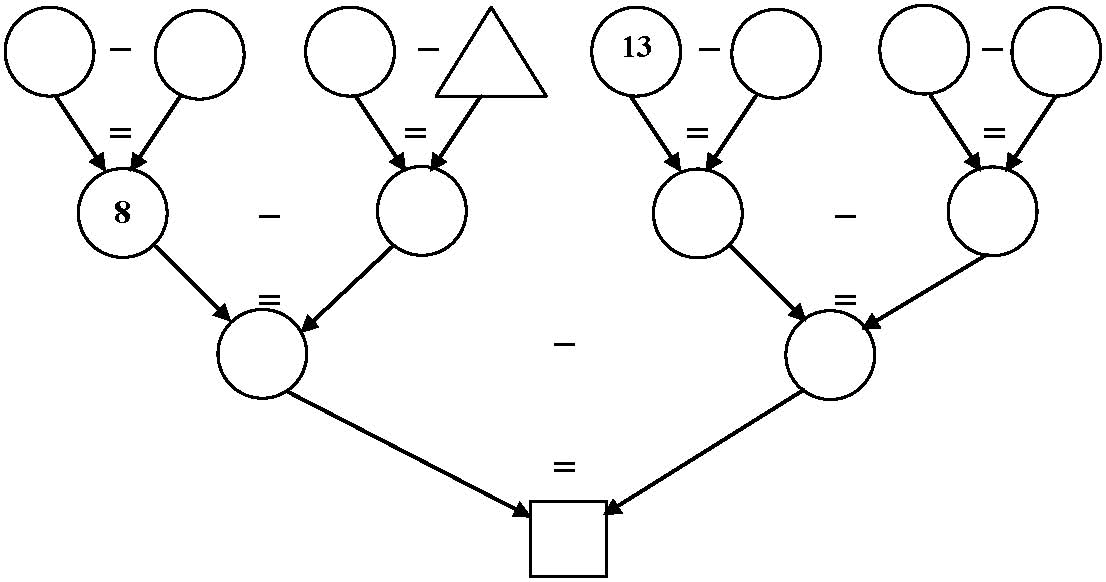
JA011011 L’ultimo numero

Fill in the blanks with whole numbers from 1 to 15.

Help : Two-figure numbers (10 to 15) are in the first line.

The sum of the numbers in the third line is 7.

Which numbers are in the square and in the triangle ?



JA011112 ATTENZIONE: VIRUS

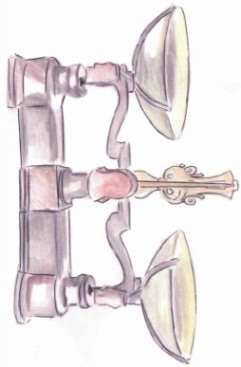
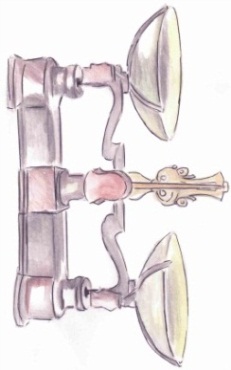
A computer has been infected by a virus.

The total number of infected computers doubles every hour.

After 3 hours, 8 computers will be infected.

How many computers will be infected in 10 hours?

#### JA011213 Ghiottonerie

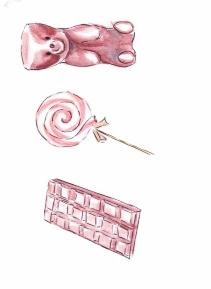
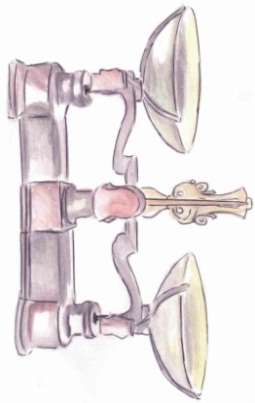


Robert is playing with a balance scale.

In the two following situations the scale is balanced.

***How many lollipops should he put on***

***the right pan to achieve equilibrium ?***



?

#### JA011415 Promozione

Here is an advert for dolls’ clothes in a toy shop’s sale :

All the hats are now €

The dresses are now all €

The shows are now all € a pair.



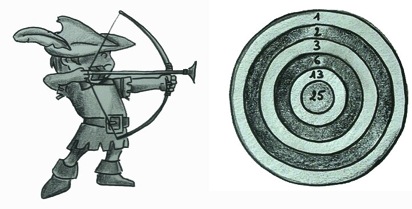
Alix, Camille and Dominique go to the shop to buy some things for their dolls.

Alix pays 18 € for a hat, a dress and a pair of shoes.

Camille pays 30 € for two hats and two dresses.

Dominique pays 13 € for a dress and one pair of shoes.

Find the price of each of the items.

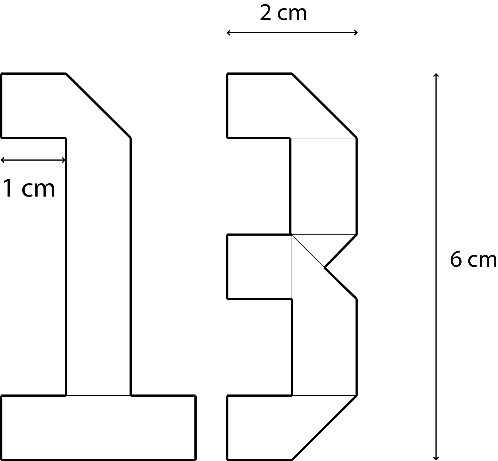


**JA011516 Robin Hood**

Robin fired 7 arrows and they all hit the target. He scored 70 points in total.

***Where did the arrows land? Give two solutions.***

**JA011617****Costruiamo il numero**



To make each number Sofiane uses a long rectangular strip of material that is 1 cm wide.

He folds the strips but he does not cut them.

***What is the shortest length needed for each strip of material ?***

**JA011718 Codice cifrato**

Captain Craps would like to retrieve the code of his safe. He remembers that he has to write all integer numbers from 1 to 15, one next to the other and in increasing order. Without altering the order of the digits, he has to remove 16 digits so that the remaining digits yield the largest possible number. Given this, what is the code of the captain Craps’ safe?

**JA011819 Si è in finale**



Teams taking part in a football tournament win points:

* 3 points when they win a game ;
* 2 points when they draw a game ;
* 1 point when they lose a game.

The MsF Junior team has played 10 games.

They have not drawn any games. They have 18 points.

***How many games have they won?***

****

**JA011920 *Il peso nascosto di Gandolfo***

After too many parties Gandoulf wants to check his weight.

Nain Bleu and Fricotin decide to annoy him by jumping on the scales at the same time.

***How much does Gandoulf weigh?***

**JC010405** **Scopri le cifre nascoste**

**Hide-and-seek**

In these equations, 3 symbols ( ♣,♦ and ♥) represent 3 figures .

♣7 + 5♦ = 9♥ ♦9 + 5♣ = ♥02

***What are the 3 figures?***

**JC010506 Incontro segreto**

Only one of these watches gives the time of a meeting between 2 spies.

12

3

6

9

12

3

6

9

12

3

6

9

12

6

9

Give the time of the meeting, knowing that :

* One watch is 20 minutes earlier
* One watch is 5 minutes late
* One watch is 25 minutes earlier

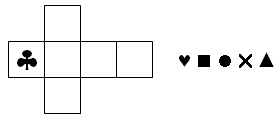
### JC010607 Mister Cube

Cubo 1: Un cubo con un quadrato nella faccia superiore, un triangolo in quella anteriore e un cuori in quella laterale.
Cubo 2: un cubo con un cerchio nella faccia superiore, un fiori in quella anteriore e un quadrato in quella laterale.
Cubo 3: Un cubo con un cuori nella faccia superiore, un ics in quella anteriore e un cerchio in quella laterale.

Mister Cube loves to look at himself in the mirror.

He turns, and turns again, …

**Observe the three reflections and complete mister Cube’s pattern.**



## **JC010708 La scatola di dolci**



Sarah has got 52 candies.

She puts them in 11 boxes; some boxes are red, some are blue.

In the red boxes, she puts 5 candies.

In the blue boxes, she puts 4 candies.

In the end, she hasn't got any candies left.

How many red boxes has she got? How many blue boxes has she got

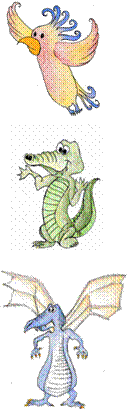
**JC010809 Uova e conigli**

**La figura rappresenta le 3 scatole:
nella scatola verde ci sono 2 conigli
nella scatola rossa ci sono 1 coniglio e 2 uova
nella scatola blu ci sono 4 uova**

In a shop, Laure buys green, red and blue boxes of chocolates.

Finally, she has got 12 rabbits and 12 eggs.

**How many green, red and blue boxes did she buy ?**

****

**JC010910 Libro di fiabe**

In my book, there are parrots, crocodiles and dragons.

All in all, there are :

**-** 8 heads ;

**-** 24 legs ;

**-** 10 wings.

***How many parrots, crocodiles and dragons are there in this book?***

### JC011011 Attenti alla carica!

It takes one hour to fully charge this unloaded mobile phone battery.

1 heure

1 hour

1 SSTUNDEstunde

1 hora

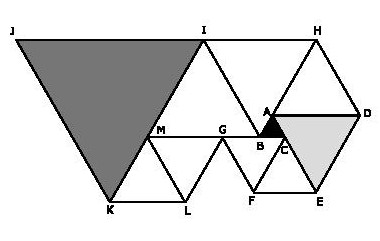


The battery is very low.

***How many minutes at the minimum are necessary to fully charge this battery ?***

?



**JC011112 Triangoli equilateri**

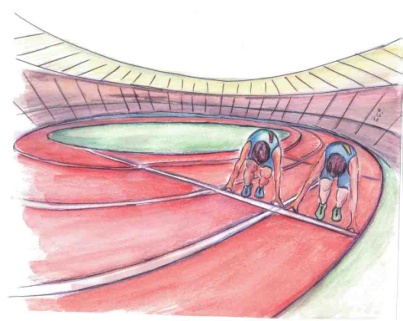
This figure is composed of 10 equilateral triangles.   
The length of the side of the ABC triangle is 2 cm.   
The length of the side of the AED triangle is 7 cm.

***What is the length of the side of the IJK triangle?***

#### JC011213 Triangolo di triangoli

This is my little brother's jigsaw puzzle. All its pieces are identical. He has already placed a black piece.  
  
**How many pieces are there in this puzzle ?**  
  
**Note** : All triangles in the figure are equilateral.

#### JC011314 Prendimi se ti riesce!



Anthony and Oliver are running in a stadium.

Look at the picture carefully.

In 2 minutes Oliver completes a lap and Anthony

completes  of a lap.

They run at the same speed all the time.

***After how many minutes will they again be side by side?***

#### 

#### JC011415 713705

Alice switches on her calculator.

She touches each of these buttons once and once only:

Then she presses the  button to get the answer 83.

***In what order did she press the buttons ?***

#### JC011516 Le torte salate

Seppi is organising a tarte flambée party. *Tarte flambée*

is like a pizza but does not have any tomato. It is a specialty of Alsace*.* The tarte flambée can have 5 different toppings :

* cream ;
* onions ;
* bacon bits ;
* mushrooms ;
* gruyere cheese.

A tarte always has cream on it and must have a minimum of two other toppings.

***Show all the possible combinations that make up a tarte flambée***

**JC011617 Il ladro mente**



A painting has disappeared from the Museum of Mathematics.

The police are interviewing 4 suspects. The thief tells lies. The others tell the truth. ***Who is the thief?***

**JC011718 Non è tuo coetaneo!**



"Mum, do you know that today our ages add up to 50?"  
"Yes Charlotte, and in 15 years from now, your age, your brother’s and mine will add up to 100."

***How old is Charlotte's brother today?***

**JC011819 Una testa, due gobbe**

A zoo has both Bactrian camels and dromedaries. Lola counts 24 heads and 33 humps.

*****How many of each type are there?***