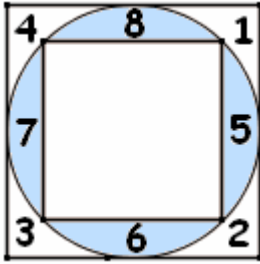


PROBLEMI TRATTI DA www.freepuzzles.com

Questo è un sito davvero molto carino “*designed and implemented by Jimmie Dean, the president of Object Link Technology. He would like to promote the Internet usage by providing valuable contents to educators and young fellows. The original purposes were educational, recreational and non-profit. The target audience are teachers, faculty and students*”.

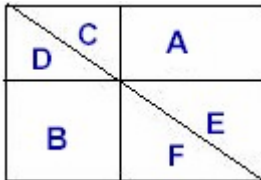
Non essendo riusciti a entrare in contatto con l’Autore, e avendo in comune con lui i “non-profit purposes”, ci siamo permessi di utilizzare alcuni fra i tanti quesiti che il sito mette a disposizione, confidando che la loro bellezza e simpatia sia di stimolo a visitarlo. I problemi, le cui soluzioni vengono spedite, a richiesta, a chi gratuitamente si iscrive, sono divisi per tipologie: Geometry, Logic, Math, Misc, Weight, Moves.

- **Geom001: Which area is larger? (Difficulty level: 1)**



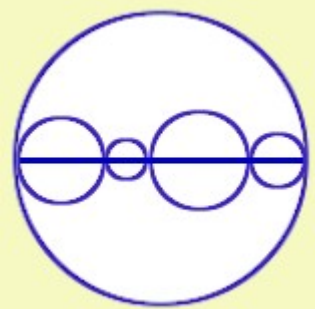
In this figure, which area is larger,
Area 1 or Area 5?
How much is the difference?

- **Geom002: Which rectangular area is larger? (Difficulty level: 1)**



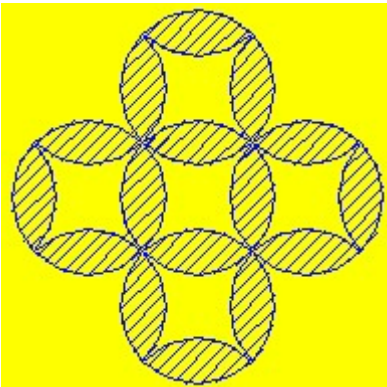
A line is drawn
from top left corner to bottom right
of the outermost rectangle.
Area A and B are two rectangles.
Which area is larger? Why?

- **Geom007: What is the perimeter of the 5 circles? (Difficulty level: 1)**



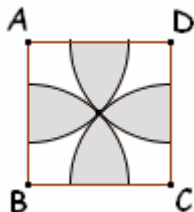
The diameter of the big circle is 40 inches.
What is the total circumferences of all 5 circles?
Assume the line segment passes
through all the centers of the circles.

- **Geom012: How many square inches are in the shaded areas within 5 circles? (Difficulty level: 2)**



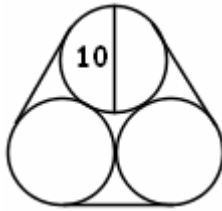
Assume the radius of one circle is 5 inches.
How many square inches are in the shaded areas?

- **Geom014: 4 quarter circumferences tangent at the center of a square (Difficulty level: 2)**



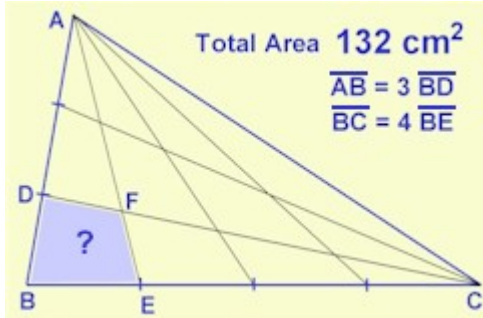
ABCD is a square with the length of 20 inches on each side.
4 quarter circumferences are tangent
at the center of the square.
How many square inches are in the total shaded area?

- **Geom017:** How long is the rubber band? (Difficulty level: 2)



Three circles are bound together by a rubber band as shown in the figure.
Assume the diameter of each circle is 10 cm;
then how long is the rubber band if it is stretched as shown?

- **Geom025:** How big is quadrilateral DBEF? (Difficulty level: 2)



ABC is a general triangle and its area is equal to 132 cm square.

The opposite side of edge A is divided in 4 equal parts and the opposite side of edge C in 3 equal parts. Straight lines join the point A to each quarter of line BC. Likewise, from point B to each third of line AB. How big is the area of quadrilateral DBEF?

- **Math001:** Send more money! (Difficulty level: 2)

SEND
+ MORE

MONEY

Janice Dean is a freshman in the University of North Texas. She has spent all the money for the fall semester. She knows that her father is a puzzle fan. So she mails her father a puzzle as shown. She knew her father should be able to resolve this puzzle easily and mail the MONEY to her. Do you know how much money she will be receiving from her father?

- **Math011:** Five 5s to make it 100 (Difficulty level: 2)

5 5 5 5 5 = 100

There are five 5s. Put any mathematical operator in the equation to make the target number of the equation equal to 100. There are at least 3 ways to make it. If you can make it more than 3 ways, you are a genius.

- **Math024:** Reverse the digit sequence by multiplying 7 (Difficulty level: 3)

ABCD
x 7

EDCBA

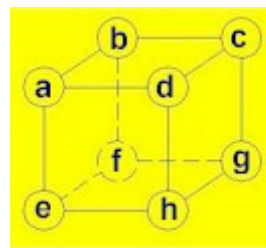
What a magic number 7 is! It can reverse the digit sequence of a 4 digit number. A, B, C, D and E are distinct single digit numbers. What is the 4 digit number ABCD?

- **Math032:** Where are the shots? (Difficulty level: 2)



John got a score of 100 out of 5 shots. All the shots were on target. Which targets did the shots land on?

- Math037:** Make the sum of each face the same (Difficulty level: 2)



Fill in numbers 1 through 8 into the circles to make the sum of each face the same.

- **Math033:** Squares magic (Difficulty level: 2)

$$(30 + 25)^2 = 3025$$

If we break the number 3025 into 2 parts: 30 and 25, then the square of (30 + 25) equals 3025 (as shown in the figure). Two more numbers share the same property. Can you find what the numbers are?

- **Math040:** WRONG + WRONG = RIGHT (Difficulty level: 2)

WRONG
+WRONG

RIGHT

Can you believe this? Just like a double negative becomes positive, WRONG plus WRONG becomes RIGHT! Every letter represents a distinct digit. What is WRONG? and what is RIGHT? (There is more than one answer)

- **Math081: Magic square of products instead of sums (Difficulty level: 2)**

8	1	6
3	5	7
4	9	2

The image shows the normal magic square with numbers from 1 to 9. The sum of each row, column, and diagonal is 15. Can you make a three by three magic square in which the product of each row, column, and diagonal is 1000? In each square you should have a different number.

- **Math090: Bull, cow and calf (Difficulty level: 1)**



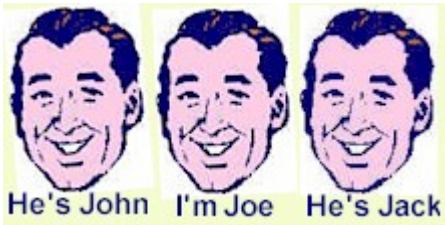
Long time ago, a rancher spent \$100.00 and bought 100 animals. There were 3 kind of animals he bought: each Bull cost him \$10.00, each Cow cost him \$5.00 and each Calf cost him \$0.50. How many he bought for each kind of animal?

- **Logic001: Gentlemen and Ties (Difficulty level: 1)**

There are 3 gentlemen in a meeting: Mr. Yellow, Mr. Green and Mr. Brown. They are wearing yellow, green and brown ties.

Mr. Yellow says: "Did you notice that the color of our ties are different from our names?" The person who is wearing the green tie says, "Yes, you are right!" Do you know who is wearing what color of tie?

- **Logic002: Triplet Brothers (Difficulty level: 1)**



There are 3 triplet brothers. They look identical. The oldest is John, he always tells the truth. The second is Jack, he always tells a lie. The third is Joe, he either tells the truth or a lie. Jimmie Dean went to visit them one day. He was wondering who was who. So he asked each person a question.

He asked the one who was sitting on the left:

"Who is the guy sitting in the middle?". The answer was "He is John."

He asked the one who was sitting in the middle:

"What is your name?". The answer was "I am Joe."

He asked the one who was sitting on the right:

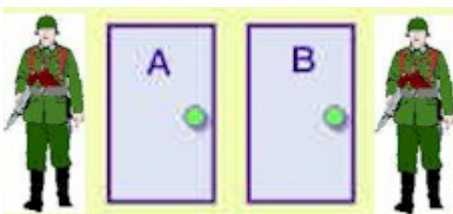
"What is the guy sitting in the middle?". The answer was "He is Jack."

Jimmie Dean got really confused.

Basically, he asked 3 same questions, but he got 3 different answers.

Would you find out who is who for Jimmie?

- **Logic003: Life door or Death door (Difficulty level: 3)**



There is a prisoner who is about to be executed. The king decides to give him one last chance to live. There are 2 doors, the life door and the death door. There is one guard standing by each door. Those two guards know which door is the life door and which is the death door. However, one of them always tells the truth and the other always tells a lie.

There is no way you can identify which door is the life door or the death door.

There is no way you can distinguish who is the one telling the truth.

The prisoner can only ask one guard one question. Then he needs to choose a door to walk in.

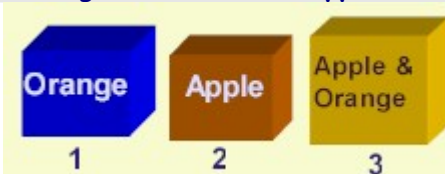
If he walks in the death door, then he will be executed.

If he walks in the life door, he can have a new life.

He did choose the life door and lived. What was the question he asked?

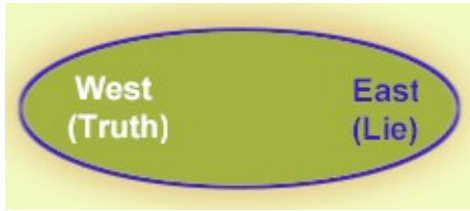
How did he choose the door after he got the answer from one of the guards?

- **Logic004: Boxes of Apples and Oranges (Difficulty level: 2)**



All 3 boxes with labels are COMPLETELY mislabeled. You will be allowed to take only one piece of fruit from one of the boxes to examine it. Which box would you choose? How do you correctly re-label all three boxes?

- Logic005: Did he tell the truth? (Difficulty level: 1)



Jimmie Dean visited an island.
 There were 2 tribes living on this island.
 The east tribal people always tell a lie.
 The west tribal people always tell the truth.
 Jimmie Dean saw a guy passing him.
 He asked the tour guide to ask that guy where he lives.
 The tour guide asked the guy and came back with the answer:
 he lives over west.
 Did the tour guide tell the truth or tell a lie?

- Logic013: How old are they? (Difficulty level: 2)



$$A \times B \times C = 36$$

$$A + B + C = ?$$

The investigator asked Jaclyn about her children.
 Jaclyn said "I have 3 daughters, Alice, Betty, and Cindy.
 The product of their ages is 36.
 The sum of their ages is the same as the street number
 of our next door neighbor."
 The investigator went next door and came back and said:
 "Still not enough information".
 Jaclyn said:
 "Oh, I forgot to tell you that my oldest daughter is now in school".
 The investigator found out the ages of her daughters immediately.
 Do you know their ages?

- Logic014: Who was the thief? (Difficulty level: 1)



There was a burglary in the Silver City jewelry store last Sunday.
 Three suspects: Robert, Scott, and Tommy
 were caught and questioned. Each person said,
 "One of the other two stole it. I did not do it."
 Later on the police found out that Tommy was lying
 and there was only one thief. Who was the thief?

- Logic016: Who stole the jewelry? (Difficulty level: 1)

There was a burglary in the Silver City jewelry store again on Tuesday. A famous jewel was stolen.
 Three suspects: Robert, Scott, and Tommy were caught and questioned.
 Robert said: I am innocent. Scott said: Tommy did not steal. Tommy said: I stole it.
 Later on, the police found out two of them lied. Who stole the jewel?

- Logic020: What is the color of the hat? (Difficulty level: 2)



Mrs. Harrison has 6 lovely hats, 3 blue, 2 yellow and one pink.
 Alice, Betty, Cindy and Debbie
 are lined up as shown in the figure.
 Mrs. Harrison help them put the hats on them
 so they will not see what color hat they have on.
 Alice can see what color of hats
 Betty, Cindy and Debbie are wearing.
 Betty can see what color of hats Cindy and Debbie are wearing.
 Cindy can see what color hat Debbie is wearing.
 Debbie can not see any of the hat colors.

Mrs. Harrison ask them what color of the hat they are wearing.
 Alice said she can not tell. Betty said she can not tell either. Cindy also can not tell. However,
 Debbie was able to tell what color she was wearing after knowing that everyone else could not tell.
 How did Debbie figure out what color she was wearing?

- Weight001: Which one is Heavier or Lighter? (Difficulty level: 2)

Among 12 identical looking golf balls there is one that is defective in weight.
 It is either heavier or lighter than the standard one. You have a balance.
 You can only weigh 3 times to find out which one is defective and whether it is heavier or lighter.

- Weight003: Which egg is lighter? (Difficulty level: 1)



Eight eggs look identical except one is lighter. How can you weigh
 only 2 times on a balance scale to find out which one is lighter?