



VISIT MATH



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# Answers

**Step 1: With great power comes great responsibility**

Only two colours are unknown, so the solution is 6 (RR, BB, GG, RB, RG, BG).

**Step 2: Sneak into the walls**

First note that If X claims to be of the same type as Y, then Y is Mathematician. If X claims to be of a different type from Y, then Y is Liar.

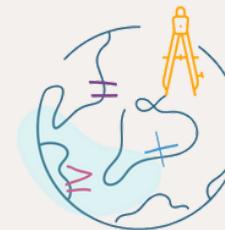
Regarding Boldo's statement **Coldo is Liar**. Then **Aldo** speaks the truth and is therefore **Mathematician**. According to Coldo's statement, since he lies, it follows that **Boldo is Liar**.

Regarding Borgaros' statement **Corgaros is Mathematician**. Therefore, Corgaros tells the truth, making **Dorgaros Liar**. Dorgaros then lies, which means **Borgaros is Liar**. Hence, **Argaros also lies** since Borgaros is Liar but Dorgaros is not Mathematician.

Considering Corte's statement **Erte is Liar**. As per Dorte's statement **Borte is Mathematician**. Being Mathematician, Borte must have spoken the truth, which means **Dorte must be Liar**, or else Erte would have to be Mathematician, which they are not. According to Erte's statement, **Corte must be Liar**, as otherwise, Erte would have told the truth, but Erte is Liar. Finally, **Arte** states a true fact and is therefore **Mathematician**.

**Step 3: Win the Game**

$P(B)=1/2 P(A)$  combined with  $P(A)+P(B)=1$  gives  $P(A)=2/3$ .



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**Step 4: Play with acoustics**

Using the equation of the ellipse the foci are  $F_1 = (-27.24, 0)$  and  $F_2 = (27.24, 0)$ .

**Step 5: Mind the steps**

The first answer is equal to the sum of the first 80 integers plus 80. So is  $80+80*81/2=3320$ .

The second answer for the even is twice the sum of the first 40 integers, so  $2*40*41/2=1640$ . The odd are  $3320-1640=1680$ .

The third answer is the odd minus the even, so  $1680-1640=40$ .

**Step 6: Escape from the Labyrinth**

Only the central blue component that doesn't lead to an exit.



**Step 7: The art of the exchange**

By subtraction of the second one with the first one we obtain  $S = 2C + 9F$  and combining this with the first one we get  $D + 2C + F = 2C + 9F$ , hence  $D = 8F$ . Same for the second point, you get  $S = D + B + 2F$ , so  $2F = D + B$ , hence  $S=4F$ . You have 8 florins, so you get two hectograms of silk.

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