There are no translations available.

1 number patterns You get one point for each correct answer -maximum 3 points

(a) 36

(b) 96

(c) 10

2 word meanings You get one point for each correct answer -maximum 5 points

(a) B (harmonious)

(b) D(ardent)

(c) C (amass)

(d) B (perpetual)

(e) C (supplant)

3 logical deduction You get one point for each correct answer -maximum 3 points

(a) (Who's on duty) C

(b) (bee boxing) D

(c) (Mr Cakeliner) C

Bonus Question: We will accept either C, D or E (we don't know if Cakeliner's stomach is 'average'). *

You get one point for this correct answer

4 Spaceport You get one point for each correct

answer -maximum 2 points

Question 1

C (485)

the number of craft landing in 3000 = private + state = 1250 + 1350 = 2600

the number of craft landing in 2090 = private + state = 1475 + 1510 = 3085

The difference in the number of craft landing in 2090 and 3000 = 3085 - 2600 = 485

Question 2

D (8.3%)

the total number of craft in 2090 = 155 + 125 + 1475 + 1610 = 3365

the total number of repaired craft in 2090 = 155

+ 125 = 280

The percentage of craft repaired in 2090 = (280 / 3365) x 100 =8.3%

5 Spaceport passengers You get one point for each correct answer -maximum 2 points

Question 1

D (40%)

The total number of passengers traveling in 2010 was 1,542,000 + 985,000 = 2,527,000

The percentage of travelers arriving in state craft = (the number of travelers arriving in state craft / the total number of travelers) x 100

= (985 / 2527) = 38.98% which is approximately 40%

Question 2

E (47%)

Number of passengers on state craft in 2012 was 1,750,000

Overall number of passengers in 2012 was 1,750,000 + 1995000 = 3745000

The percentage of passengers on state craft was (1,750,000 / 3745000) x 100 =46.73% which is approximately 47%

6 Hackers You get one point for each correct answer -maximum 4 points

Question 1 D (24.1)

Question 2 C (27.1)

Question 3 A (feb)

Question 4 C (36.5)

7 Fruit You get one point for each correct answer -maximum 4 points

Question 1 D (65)

Question 2 C (2002)

Question 3 A (2000)

Question 4 C (2002)

8 Shore leave You get one point for this correct answer

72 people went to the bar and 14 people went to the beach.

The first thing is to make this question an equation. The equation is x+y=86. x is the larger group and y is the

smaller group. So, y=86-x. So, x+86-x=86. If the first statement is true then ¼(x)>y. Since y=86-x, then ¼(x)>86-x. Now find out the greatest possible number that will satisfy the equation ¼(x)>86-x. The largest number y could be is 17. The smallest number x could be is 69.

If c) is true, then one of the groups must be even since "couples" are the multiples of 2 (1 couple consists of 2 people, 2 couples

consists of 4 people). Then, you figure out that 1 group affects the other group. If there is 1 more person in group x, then there is one less person in group y. So, that means that both group must be even or else both groups are odd and no group will satisfy c). So x must consist of 70, 72, 74, 76, 78, 80, 82, 84, or 86 people and y must consist of 16, 14, 12, 10, 8, 6, 4, 2, or 0 people. Now try to make the groups satisfy e). Substitute c for

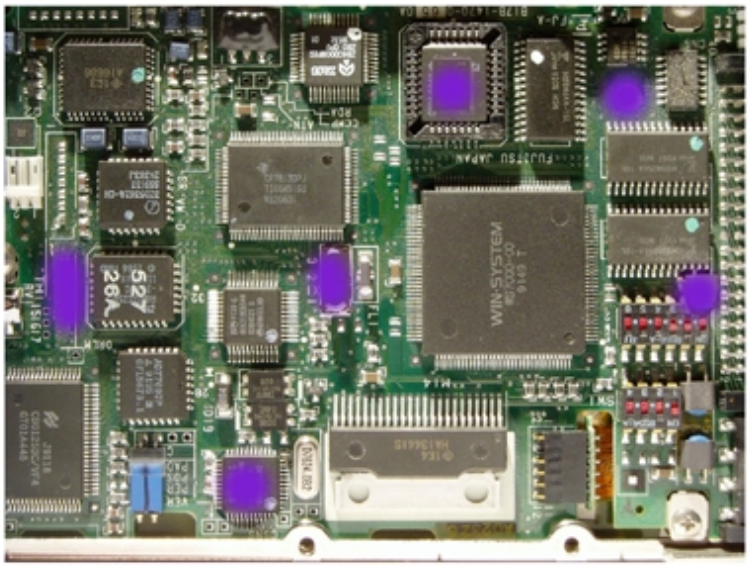
young people and o for old people. The equation is 8o=c. So, o+c equals the number of people in one of the groups. If c=8o, then that will mean o+8o equals the number of people in one of the groups. Then, simplified the equation.

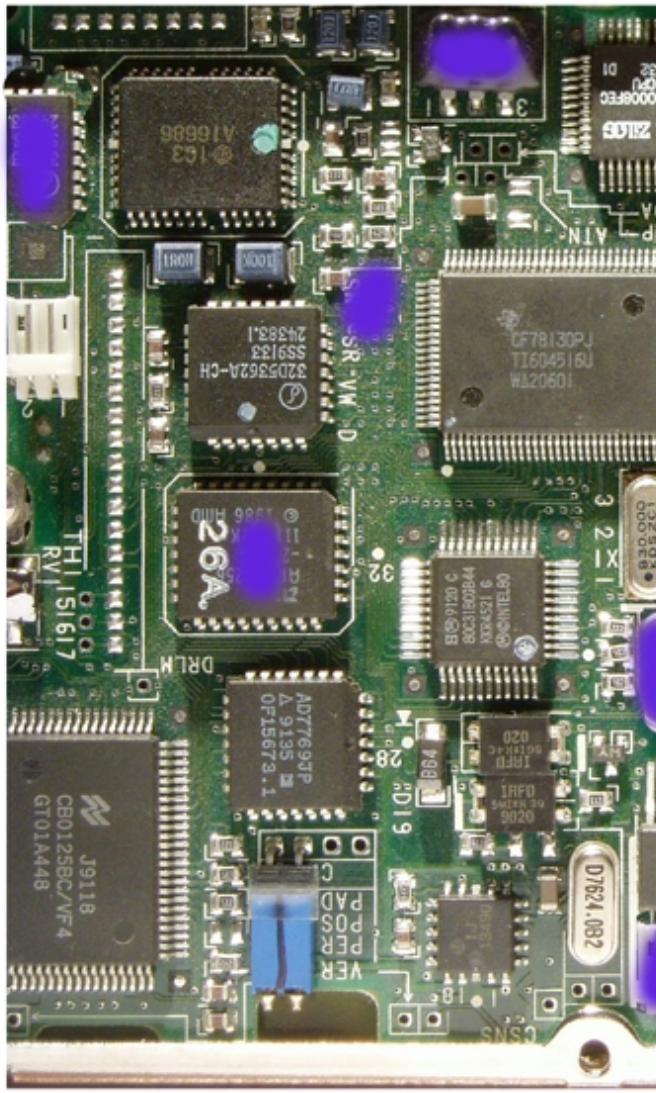
o+8o=9o.

So 9o equal the number of people in one of the groups. So one of the groups has to be a multiple of 9. Since y consists of a group that has 16 people or under, then the only multiple

of 9 is 9. But the groups have to consist of an even number of people, so group x must satisfy e). The only multiples of 9 above 70 and under 86 are 72 and 81. But, the number has to be even. So, group x consists of 72 people and y consists of 14 people.

9 CIRCUITS You get one point for each difference spotted -maximum 12 points





Footnotes

*Mr Cakeliner is now

employed by research scientists as a permanent replacement for the outdated LD50 test.