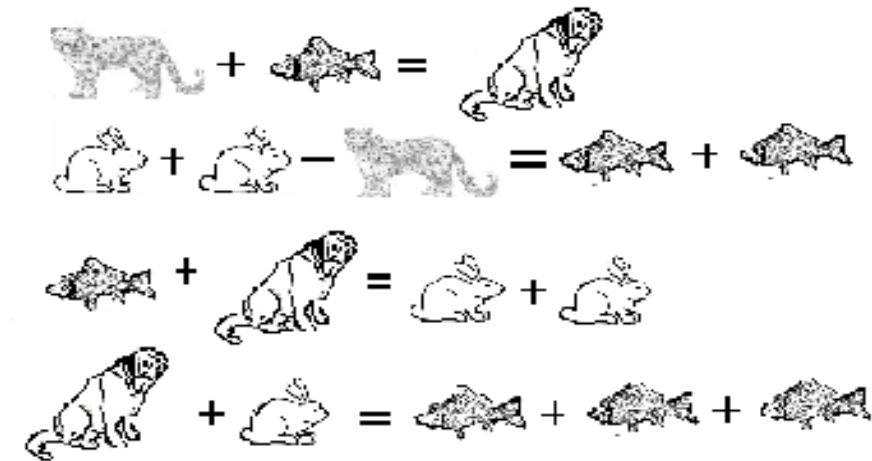




The winner for Problem 278 was Anthony Clive

Also providing correct solutions was Farhaan Assar

Top of the Food Chain



What is the total value of two fish, one dog and one leopard, and what are the lowest possible values of each animal?

Use the following abbreviations: L for leopard , F for fish, R for rabbit, and D for dog.
From the four rows we get four equations:

$$L + F = D$$

$$2R - L = 2F$$

$$F + D = 2R$$

$$D + R = 3F$$

By subtracting the third equation from the fourth, we get $R - F = 3F - 2R$, therefore $3R = 4F$. For the lowest values of these figures: $R = 4$ and $F = 3$

By adding the first and second equations, we get $2R + F = D + 2F$ therefore $2R = D + F$
Therefore $D = 2R - F = 5$, and by substitution $L = 2$

The total value of two fish, one dog and one leopard is $2 \times 3 + 5 + 2 = 13$