

# PROBLEM OF THE WEEK

It has been estimated that the mass of insects caught by spiders in a year in the UK is equal to the mass of the human population of the UK.

Assuming this population is 60 million and the average mass of a human is 70 kg, what is the mass, in tonnes, of insects caught by spiders per year in the UK?



A: 4.2 B: 42 C: 4200 D: 420 000 E: 4 200 000

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## PROBLEM OF THE WEEK

**Lisa's bucket does not have a hole in it and weighs 21kg when full of water. After she pours out half the water from the bucket, it weighs 12kg. What is the weight of the empty bucket?**

**A: 1 kg B: 2 kg C: 3 kg D: 4 kg E: 5 kg**



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## **PROBLEM OF THE WEEK**

**In California, a bottle of orange juice costs \$3, but when you return the bottle you get \$2 back. What is the largest number of bottles of juice you can buy if you start with \$10?**



**A: 3   B: 6   C: 8   D: 9   E: 10**



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## **PROBLEM OF THE WEEK**

**Jack and Jill played a game for two people. In each game, the winner was awarded 2 points and the loser 1 point. No games were drawn. Jack won exactly 4 games and Jill had a final score of 10 points. How many games did they play?**

**A: 5   B: 6   C: 7   D: 8   E: impossible to determine**



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# PROBLEM OF THE WEEK

**In 1833 a ship arrived in Calcutta with 120 tons remaining of its cargo of ice. One third of the original cargo was lost because it had melted on the voyage. How many tons of ice was the ship carrying when it set sail?**

**A: 40   B: 80   C: 120   D: 150   E: 180**



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## PROBLEM OF THE WEEK

**Andy and his younger cousin Alice both have their birthdays today. Remarkably, Andy is now the same age as the sum of the digits of the year of his birth and the same is true of Alice. How many years older than Alice is Andy?**

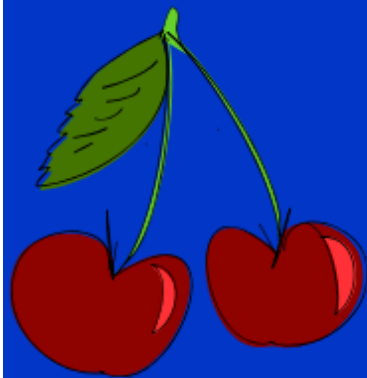
**A: 10   B: 12   C: 14   D: 16   E: 18**



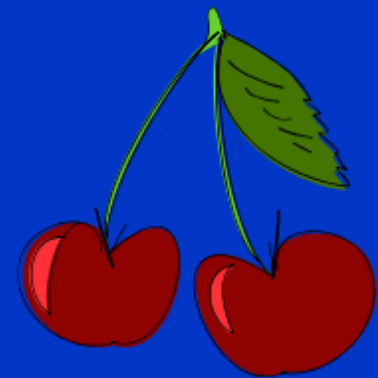
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# PROBLEM OF THE WEEK

**Karen has three times the number of cherries that Lionel has, and twice the number of cherries that Michael has. Michael has seven more cherries than Lionel. How many cherries do Karen, Lionel and Michael have altogether?**



**A: 12   B: 42   C: 60   D: 77   E: 84**



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