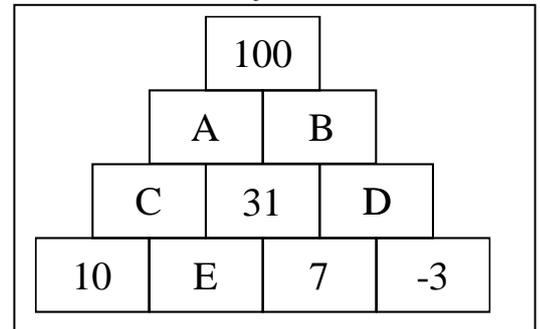


Answers to 28 April puzzles and riddles

A In the number pyramid shown the number in any box is the sum of the two numbers in adjacent boxes beneath it. What are the missing values A, B, C, D, E?



$$D = 7 + (-3) = 4$$

$$E + 7 = 31, \text{ so } E = 24$$

$$C = 10 + E = 10 + 24 = 34$$

$$B = 31 + D = 31 + 4 = 35$$

$$A = C + 31 = 34 + 31 = 65$$

(And indeed $A + B = 100$)

B What is it that is black when you buy it, red when you use it, and grey when you throw it away? Charcoal

C A man says: "The day before yesterday I was 24. Next year I will be 27." How can that be?

He was speaking on 1 January, and his birthday is on 31 December. So as he speaks he is 25. The day before yesterday was 30 December, when he was 24. On 31 December of this year he will be 26, and next year (on 31 December) he will be 27.

D An absentminded philosopher kept forgetting to wind up his big clock and eventually it stopped.

With no radio, TV, telephone, internet, or any other means of telling the time accurately he set off on foot to his friend's place about three quarters of a mile down a straight, level road.

Shortly after arriving at his friend's house he set off to walk back home and when he got there he set his clock quite accurately. How did he do that? (He did not take his friend's clock with him.)

Here is my solution to this problem, there may be other possibilities.

He walked to his friend's house at a steady pace and counted the number of steps he took, call it N .

At his friend's house he noted the time T_1 , then walked back towards his house for half N steps, at the same steady pace, turned round and walked back again to look at his friend's clock again showing time T_2 . From the difference $T_2 - T_1$ he knows how long it takes him to walk N steps, call it T minutes.

He then sets off for home, walking back at the same steady speed. When he gets there he sets his clock to his departure time T_2 plus T minutes.

E *What is it that is tall when it is young, but short when it is old?* A candle.