

Starter problems

Here are some problems to get you thinking!

Problem 1: The monkey and bananas

A monkey is in a room. Suspended from the ceiling is a bunch of bananas, beyond the monkey's reach. In the corner of the room is a box. How can the monkey get the bananas?

When you have solved this, write down the steps the monkey must take.

Problem 2: Train in a tunnel

A 550 m long train, travelling at 50 kmph, enters a tunnel of 2 km in length. How much time will elapse between the moment the front of the train enters the tunnel and the moment the end of the train clears the tunnel?

Problem 3: Coins

A float contains £14. It is made up of four different denominations of coin and the largest denomination is £1. There is exactly the same number of each coin. How many of each coin is there and what are their values?

Problem 4: The fruit shop

Complete the blanks in the following sentence with two five letter words. The two words must contain the same five letters. What are the words?

At a fruit shop the lady picked up a _____ which was unusually _____.

Problem 5: Another train journey

A train covers an outward journey at 120 mph. It returns over exactly the same distance at 80 mph. What is the train's average speed over the entire journey?

Problem 6: Customers in a supermarket

In a supermarket, the first 25 customers of the day purchased an average of two items each. After another 15 customers, the average number of items purchased by each customer rose to eight. What was the average number of items purchased by the last 15 customers?