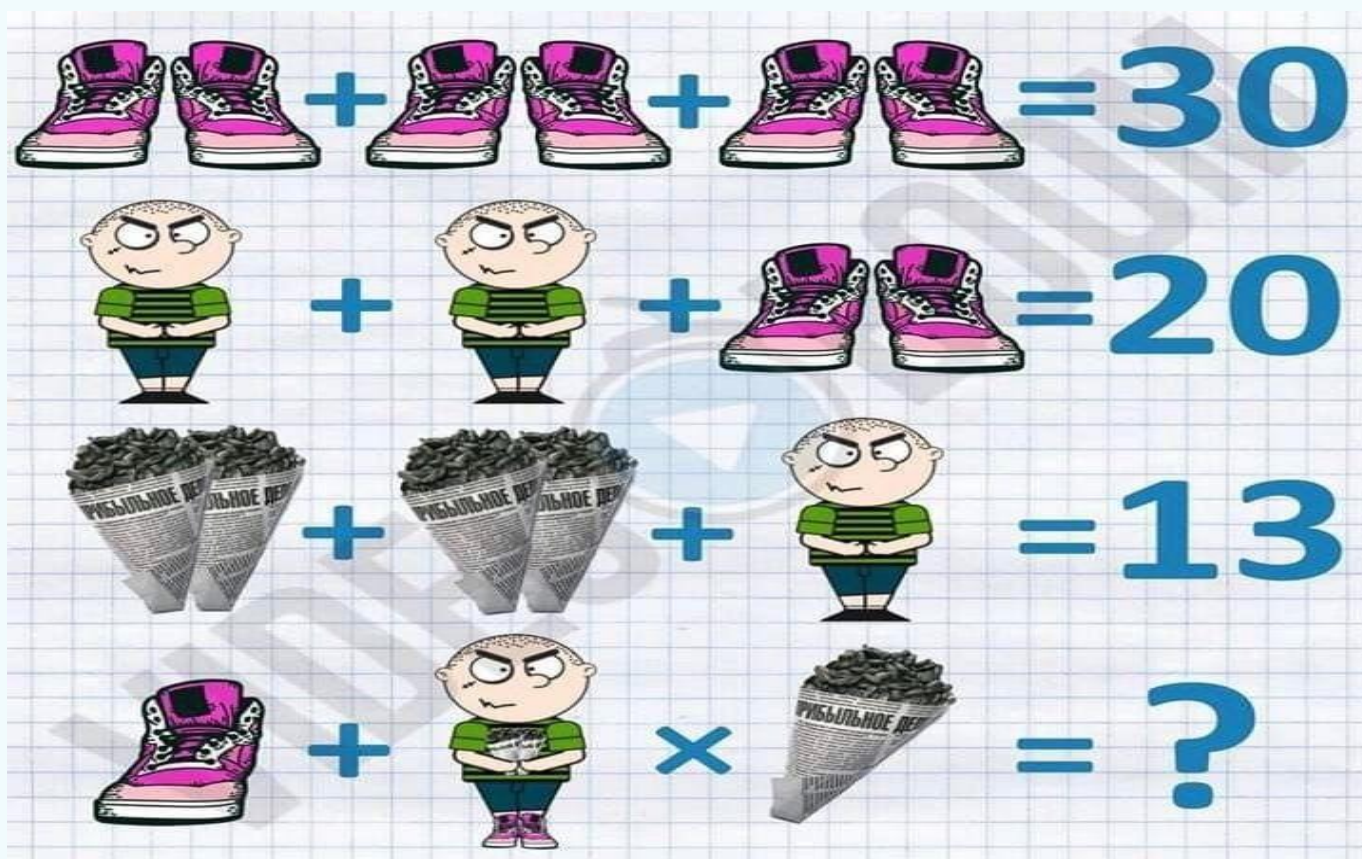# Maths Transition – Newark Academy
Shoes, Boy and Popcorn puzzle!

Do you think you can complete my maths brain teaser? When you think you have an answer, carry on reading!

When first looking at the puzzle, the most common answer people give is 60. However, that is in fact incorrect. Another popular answer is 30, but again, that is also not correct!

Let's look at each line of working to get the correct answer:

Three pairs of shoes = 30, so one pair of shoes must equal 10.

On the second line, two boys plus one pair of shoes = 20. We already know that each pair of shoes is 10, so ? + ? + 10=20. Therefore, two boys must equal 10, so one boy is 5.

On the third line, there are 2 lots of 2 bags of popcorn (4 altogether) plus one boy = 13. ?+? + 5=13. So two bags of popcorn = 4.

Moving forward to the fourth line, we have **one shoe,** the boy, who is also wearing **a pair of shoes** and **holding two bags of popcorn**, and finally **one bag of popcorn**. If a pair of shoes is 10, then one shoe must be 5. A boy is 5, but if he is wearing a pair of shoes and holding two bags of popcorn, that takes the number up to 19. And if two bags of popcorn is 4, then one must be 2. So all that working out shows us the numbers are 5 + 19 x 2. Now to get the correct answer, we must follow the order of operations! So we do 19 x 2 first which equals 38, then + 5 which gives our final answer of 43!

Your task is to try a number problem like the shoes boys popcorn puzzle. How creative can you be? What diagrams will you use? Can you use fractions, decimals or negative numbers within your problems?

After you've created your task, we would like you and your family to share it with other family/friends, share it on social media and share it with us! You can send your puzzles to jwoolley@newarkacademy.co.uk so we can then share it on the Newark Academy twitter!