

NEW! Puzzles of the Fortnight

Middle School

“The Interesting Number”

I just found a number with an interesting property:

- When I divide it by 2, the remainder is 1.
- When I divide it by 3, the remainder is 2.
- When I divide it by 4, the remainder is 3.
- When I divide it by 5, the remainder is 4.
- When I divide it by 6, the remainder is 5.
- When I divide it by 7, the remainder is 6.
- When I divide it by 8, the remainder is 7.
- When I divide it by 9, the remainder is 8.
- When I divide it by 10, the remainder is 9.

It's not a small number, but it's not really big, either.

When I looked for a smaller number with this property, I couldn't find one.

Can you find it?

Written solutions (with full working!) by 6th October on A4 paper to Mr Taylor directly, or his desk in M114. The first correct solution out of the hat wins a prize!

Sixth Form

“Two Kings”

1. A bridge player dealt a hand of 13 cards lets it be known that he has a King. What is the probability that he holds at least two Kings?
2. A bridge player dealt a hand of 13 cards lets it be known that he has a King of Diamonds. What is the probability that he holds at least two Kings?

Write up your solution on a single page of A4. Hand it to Mr English directly, or leave it in his pigeonhole in the Masters' Common Room, by Friday 6th October. The first correct solution out of the hat wins a £5 Amazon voucher.