(A6) We proceed as follows:

$$20! - 19! + 18! = (20 \times 19 \times 18!) - (19 \times 18!) + 18!$$
$$= 18!\,(20 \times 19 - 19 + 1)$$
$$= 18!\,(19^2 + 1)$$
$$= 18!\,(361 + 1)$$
$$= 18!\,(362)$$
$$= 362 \times 18!$$
$$= 2 \times 181 \times 18!$$

So, we need to find the largest prime factor in $(2 \times 181 \times 18!)$.
To begin with, we note that 2 is the smallest prime while the factor 18! has its largest prime as 17 (because 17 is the largest prime less than 18). Hence we need to check whether 181 is a prime or if it has a prime factor larger than 17.

We will now proceed to show that 181 is a prime and thus it becomes the answer to our problem. To do this, we use the following well know ~~for~~ fact about primes:

"For any positive integer n, if none of the primes less than $\sqrt{n}$ divides n, then n must be a prime."

~~For~~ In our case, $n = 181$. Note that $\sqrt{n} = \sqrt{181} < \sqrt{196} = 14$. That is, $\sqrt{n} < 14$. So we need only check whether primes less than 14 divide 181 or not. (Primes less than 14: 2, 3, 5, 7, 11, and 13).
It's easy to see that none of these primes divide 181 and hence it follows that 181 is a prime. Thus 181 is our answer.

$181 \div 2 = 90\frac{1}{2}$

$181 \div 3 = 60\frac{1}{3}$

$181 \div 5 = 36\frac{1}{5}$

$181 \div 7 = 25\frac{6}{7}$

$181 \div 11 = 16\frac{5}{11}$

$181 \div 13 = 13\frac{12}{13}$

$\boxed{\text{Answer: } 181}$