



1	Evaluate $(3!)!$
2	A new operation symbol @ is defined as $a@b = \frac{a * b}{a - b}$ What is $7@(4@2)$ ?
3	Evaluate $\frac{1}{2} + \frac{1}{6} + \frac{1}{12} + \frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \frac{1}{56}$
4	In a large number, any 4 consecutive digits add up to 20. The 102nd, 103rd, and 128th digits are 1, 3, and 9 respectively. What is the first digit of this number?
5	Evaluate: $\frac{1}{7} + \frac{2}{49} + \frac{1}{343} + \frac{2}{7^4} + \dots$
6	Find all zeros of $y = x^4 - 2x^3 - 76x^2 + 242x + 315$
7	Two cars are 210 miles apart. If they go towards each other they'll meet in 2 hours. If they drive in the same direction with the same speed from before, the faster one will catch up in 14 hours. How fast is the faster car driving?
8	Find $x$ if $x! = (7!)!/(7!)$
9	Evaluate $\frac{1}{21} + \frac{202}{2121} + \frac{50505}{212121} + \frac{13131313}{21212121}$
10	There exists one six-digit number with 6 as its last digit such that, if I move its last digit to the front it becomes 4 times the original number. What is the original number?