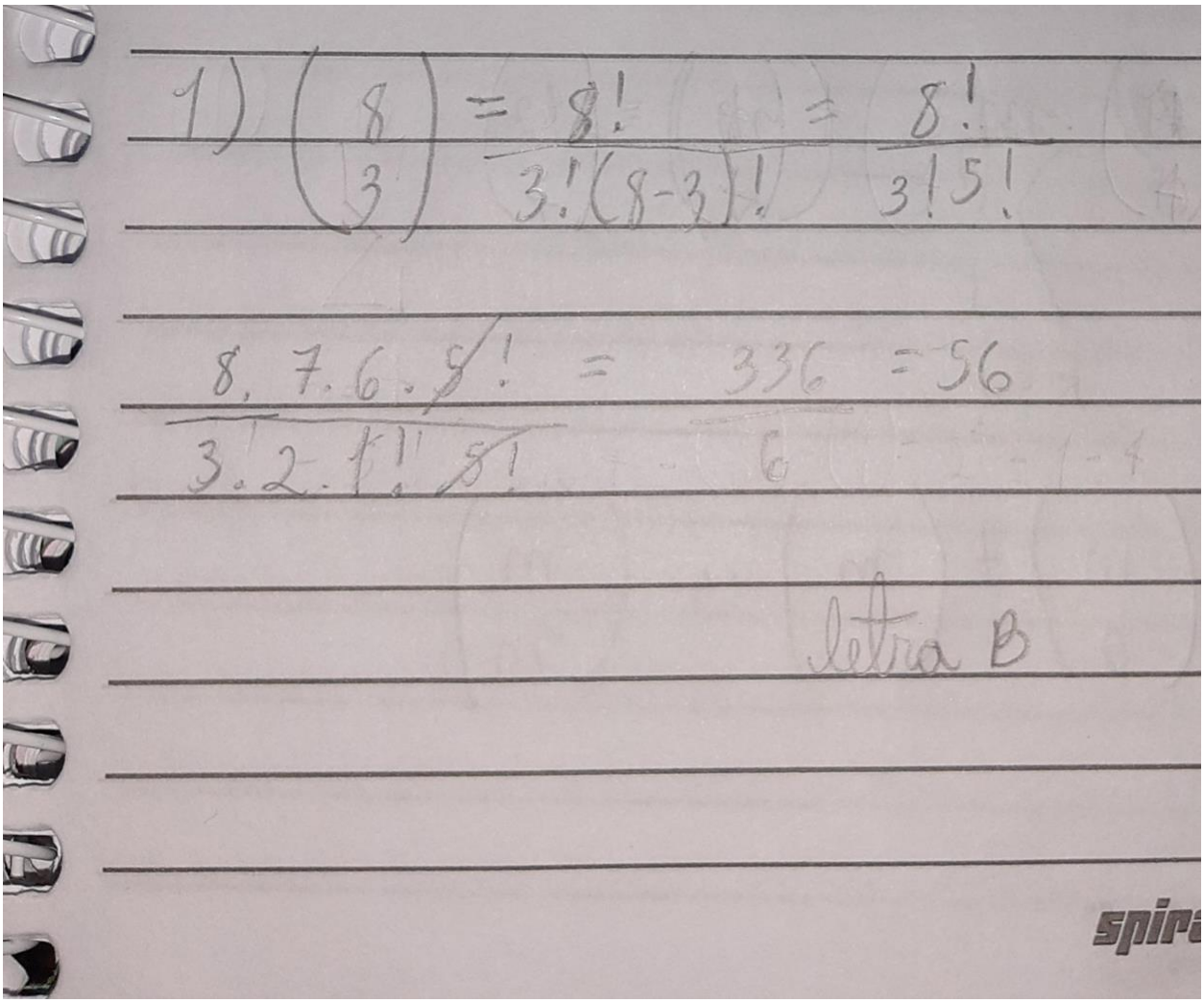
Nome: Victória Ferreira de Souza

Sala: CTII 317



2) $\binom{200}{198} = \frac{200!}{198!(200-198)!}$

$\frac{200}{198!\,2!} = \frac{200 \cdot 199 \cdot \cancel{198!}}{\cancel{198!}\,2!}$

$\frac{39800}{2} = 19.900$ letra A

3) $\binom{n-1}{2} = \binom{n+1}{4}$

$4(n-1) = 2(n+1)$

$4n - 4 = 2n + 2$

$4n - 2n = 2 + 4$

$2n = 6$

$n = \frac{6}{2} = 3$ C

41) $\binom{20}{13} + \binom{20}{14} = \binom{21}{7}$

2 consecutivos ⇒ ↓

letra C

6)

a) $10 \quad \binom{10}{p} = \binom{10}{0} + \binom{10}{1} \cdots \binom{10}{10}$

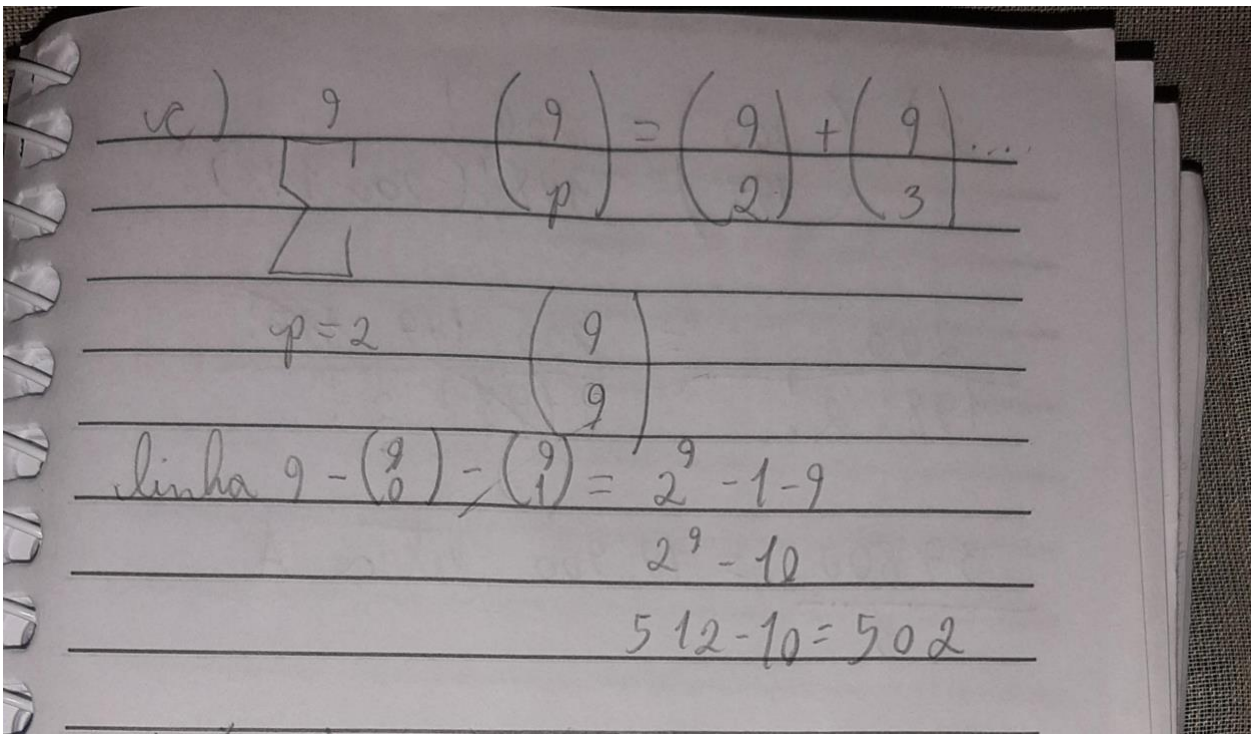
$\sum_{p=0}$

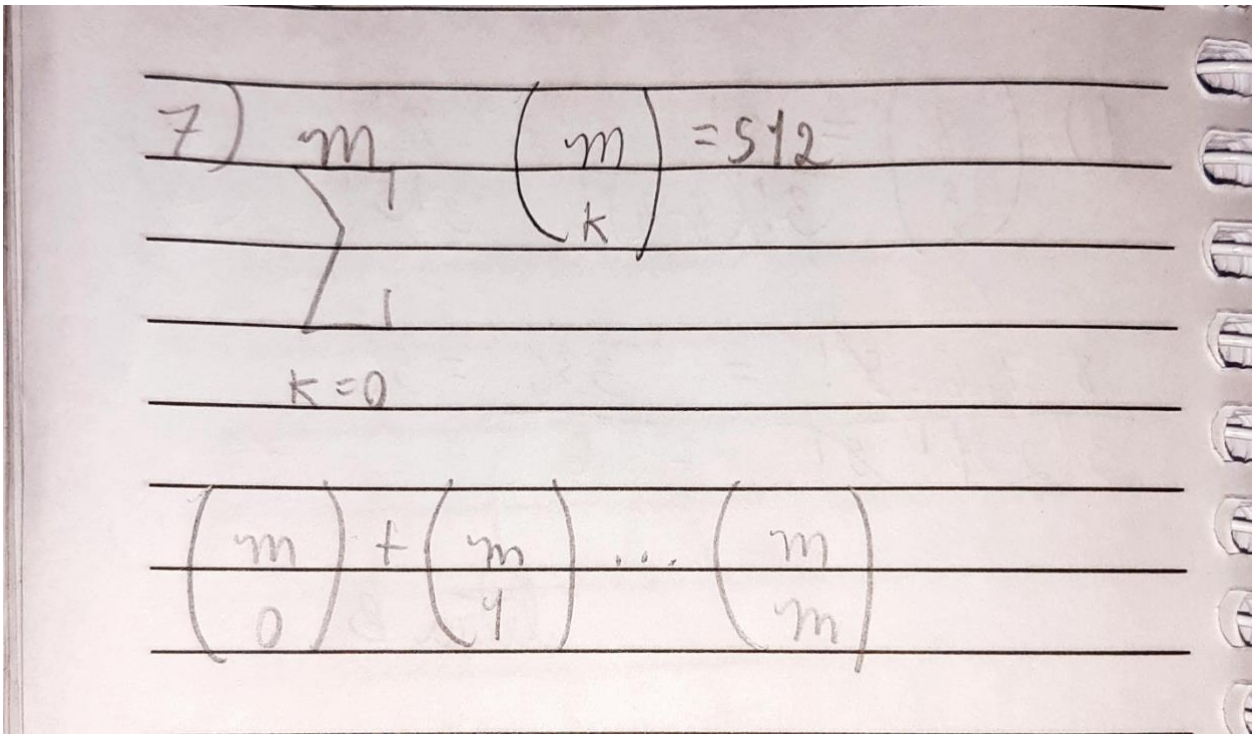
$2^{10} = 1024$

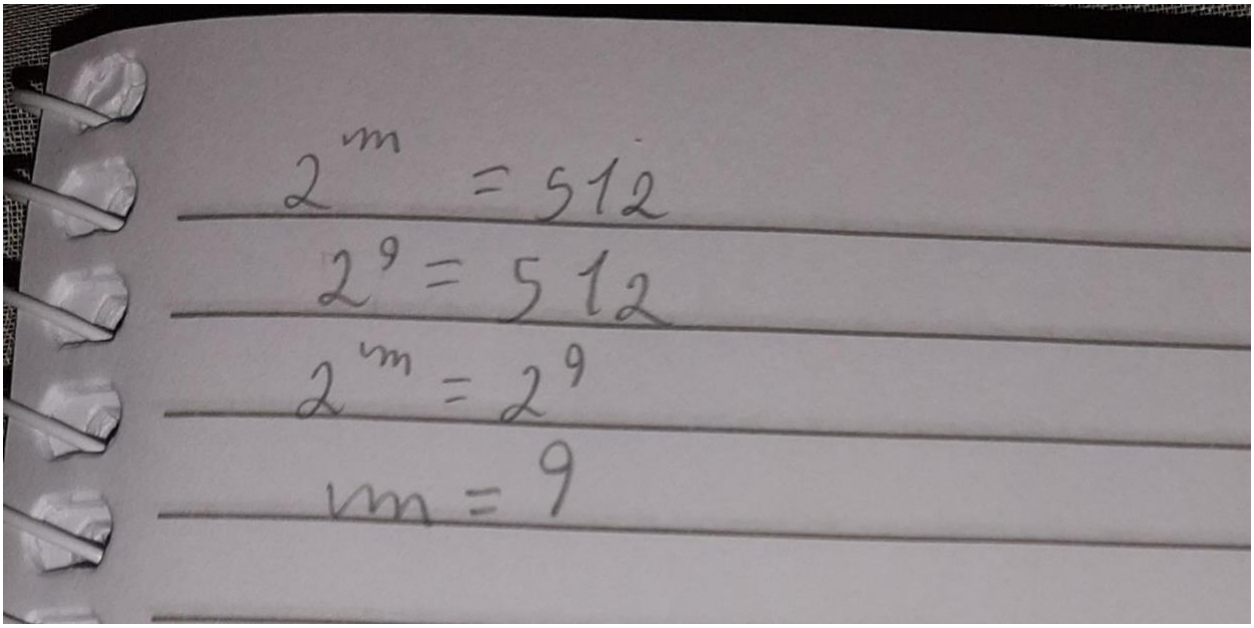
b) $9 \quad \binom{10}{p} = \binom{10}{0} + \binom{10}{1} \cdots \binom{10}{9}$

$\sum_{p=0}$

linha $10 - \binom{10}{10} = 2^{10} - 1 = 1023$


c) 9
$\binom{9}{p} = \binom{9}{2} + \binom{9}{3} \ldots$
1
1
$p = 2$
$\binom{9}{9}$
linha $9 - \binom{9}{0} - \binom{9}{1} = 2^9 - 1 - 9$
$2^9 - 10$
$512 - 10 = 502$


7) m
$\binom{m}{k} = 512$
1
1
$k = 0$
$\binom{m}{0} + \binom{m}{1} \ldots \binom{m}{m}$


$2^m = 512$
$2^9 = 512$
$2^m = 2^9$
$m = 9$