Exercise 7.1

(Q1)(i) 41 = 4x3x2x1 = 24

(ii) 61 = 6x5x4x3x2x1 = 720

(iii) $81 = 8x \frac{1}{2} \times 6x \times 5x \times 5x \times 2x = 8$.

 $\frac{(ij)}{71} = \frac{8 \times 77}{7} = 8.$

(iy) 101 = 10x8x8x7. = 720.

(vi) 6! = 6x5x4x3x = 120 = 20.

3131 3! 34 6

(V) 111 = 11x10x9x8x7? = 330.

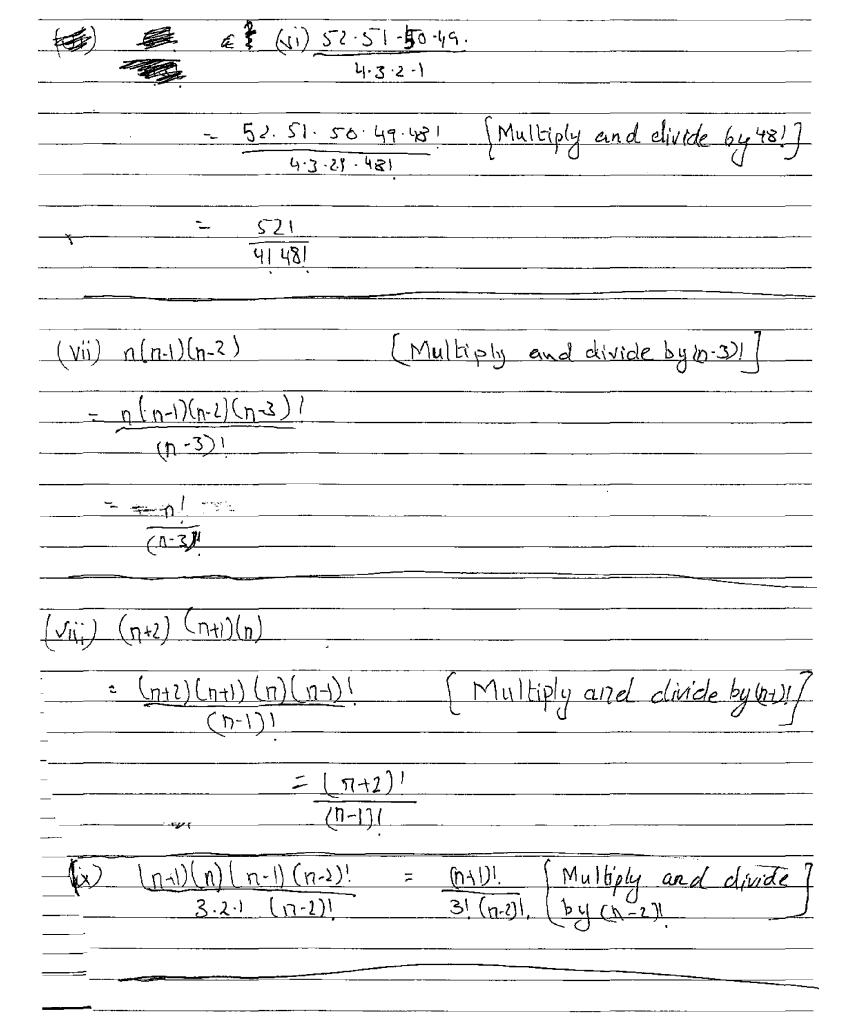
(vii) 81 = 8x7x6x5xxx = 840.

 $\frac{(y_{111})}{214151} = \frac{11x10x9x8x7x6x5!}{214151} = \frac{332640}{214151} = \frac{6930}{48}$

(ix) $9! = 9! = 9 \times 8 \times 7! = 72 = 36.$ $3!7! = 2! \times 7! = 2$

(x) 15! = 15! = 1 = 1 = 1 . (:0! = 1)

(xi) 3! = 3x2x1 = 6.
$(x_{ii}) 4(x_{01} \times 1) = (4x_{3} \times 2 \times 1)(1)(1) = 24$
(Q2) ii)-6.5.4 x3! [Multiply and clivide by 3!]
= 61
(ii) = 12.11.10 (multiply and clivide by 91)
= 12.11.10.91 = 121
iii) 20.19.18.17.161 [Multiply and divide by 161]
= 201
(iv) = 10.9 [Multiplyand divide by 81]
$= 18 \cdot 9 \cdot 8 = 18 = 18 = 18 = 18 = 18 = 18 = 18 $
(v) 8.7.6 [multiply and divide by 5.7]
= 8.7.6.5! = 8! $= 3.5!$ $= 3.5!$



$(x) n(n-1)(n-2) \cdots (n-x+1)$
As we see the a number are decreasing by 1. Thus the next number would be:- (n-x+1-x) = n-x.
$= n (n-1)(n-2) - \cdots (n-x+1) (n-x)! \qquad Multiply and divide (n-x)! \qquad by (n-x)!]$
(V-8) = 4-8 U
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