

Short cut method: ${}^5C_2 = \frac{5 \times 4}{2!} = 10$

$(5) \times (5-1) = 10 = \frac{(5)(5-1)}{2!}$

$\therefore \frac{(2n)(2n-1)(2n-2)}{3!} = \frac{11}{1}$

$\frac{(2n)(n-1)(n-2)}{3!} = \frac{11}{1}$

$\therefore \frac{(2)(2n-1)2(n-1)}{(n-1)(n-2)} = \frac{11}{1}$

$\therefore 8n-4 = 11(n-2)$

$\therefore 8n-4 = 11n-22$

$\therefore 22-4 = 11n-8n$

$\therefore 18 = 3n$

$n = 6$