

S.4 Add Math Quiz 4(a)

Time allowed: 15 minutes

Total Mark: 12

1. In the expansion of $(x^2 + 2)^n$ in descending powers of x , where n is a positive integer, the coefficient of the third term is 40. Find n and the coefficient of x^8 .

(5 marks)

2. (a) Find the coefficients of x and x^2 in the binomial expansion of $\left(3 - \frac{x}{2}\right)^8$.

- (b) If the coefficient of x^2 in the expansion of $(2 + ax - x^2)\left(3 - \frac{x}{2}\right)^8$ is -40095 , find the value of a and the coefficient of x .

(3 + 4 marks)

End of Quiz