



**Subject: Numerical methods &
Algebra**

Chapter: Unit 3 & 4

Category: Assignment 2

1. What is the sum of all 3 digit numbers that leave a remainder of '2' when divided by 3?
2. The 6th term of a G.P. is 32 and its 8th term is 128, then find the common ratio of the G.P.
3. Use the Binomial Theorem to expand $(4+3x)^5$
4. Expand the following $(1 - x + x^2)^4$
5. Use factoring to solve the following equation
 - 1) $\frac{w^2-10}{w+2} + w - 4 = w - 3$
6. Solve by using the Quadratic Formula:
 - 1) $x^2 - 6x = -5$
 - 2) $x(x + 6) + 4 = 0$
7. Use completing the square method to solve:
 - 1) $x^2 + 4x - 21 = 0$
 - 2) $x^2 + 10x + 21 = 0$
8. Solve the inequality
 - 1) $7x+5/3x-5<5$.
 - 2) Solve the inequality $1/x+3\leq 11$

9. Solve modulus and find the interval of x for

1) $|x^2 - 5x + 6|$

2) $|x^2 - 5x + 6| + |x^2 - 8x + 12| = 0$.

10. Solve the inequality $|3x-2| \geq |x+4|$



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