Name:

## QUIZ - MATH GRADE 11 SL

1. (30%) The coefficient of  $x^2$  in the expansion of  $\left(x + \frac{2}{a^2x}\right)^6$  is 60. Find the possible values of a.

2. (30%) Given the polynomial  $(x-a)^3(x+a)^3$ . Given that the coefficient of  $x^2$  is 48. Find the possible values of a. Help: Rewrite before expanding.

- 3. (40%) Given the binomial  $(1 2x^2)^8$ .

  - a. (10%) Find the third term in its most simplified form
    b. (15%) Find the middle term (no need to simplify).
    c. (15%) Find the coefficient of the term in x<sup>6</sup> (simplify reasonably)