## QUIZ - MATH GRADE 11 SL

1. $(30 \%)$ The coefficient of $x^{2}$ in the expansion of $\left(x+\frac{2}{a^{2} x}\right)^{6}$ is 60 . Find the possible values of $a$.
2. (30\%) Given the polynomial $(x-a)^{3}(x+a)^{3}$. Given that the coefficient of $\mathrm{x}^{2}$ is 48. Find the possible values of $a$. Help: Rewrite before expanding.
3. $(40 \%)$ Given the binomial $\left(1-2 x^{2}\right)^{8}$.
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 $x^{6}$ (simplify reasonably)
