

Math 80 Quiz #7 Answers

1. (a) $(7x^3 - 2x^2 + 5) - (3x^3 - x^2 - 10) = 7x^3 - 2x^2 + 5 - 3x^3 + x^2 + 10 = \boxed{4x^3 - x^2 + 15}$
 - (b) $4a^3(3a^2 - ab + 11b^2) = \boxed{12a^5 - 4a^4b + 44a^3b^2}$ (Distribution)
 - (c) $(5t + \frac{1}{3})(6t - 3) = 30t^2 - 15t + 2t - 1 = \boxed{30t^2 - 13t - 1}$
 - (d) $(5m - 6)^2 = (5m - 6)(5m - 6) = \boxed{25m^2 - 60m + 36}$
2. (a) To find the GCF of 30 and 75, you can list factors of both values and look for the largest common factor or you can use the prime factorization of each value. Since $30 = 2 \cdot 3 \cdot 5$ and $75 = 3 \cdot 5 \cdot 5$, the GCF $= 3 \cdot 5 = \boxed{15}$.
 - (b) You can use either method to find the GCF of 3, 6, and 14, but you will find that there are no common factors among all three numbers aside from the number 1. So, the GCF $= \boxed{1}$.