1) $c = 10$
$n_0 = 10$

$5n^3 + 2n^2 + 3n <= 10n^3$
for all $n \geq 10$

2) $c_1 = 20$
$c_2 = 1$
$n_0 = 10$

$n \leq \sqrt{7n^2 + 2n - 8} \leq 20n$
for all $n > 10$

3) $d(n) < c_1 f(n)$ for $n > n_d$
$e(n) \leq c_2 g(n)$ for $n > n_e$

$e(n)d(n) < \underbrace{c_1 c_2}_{\text{const.}} f(n)(g(n))$
for all $n > n_d$ & $n > n_e$