

(C2-5.4a) Name:

Homework Questions 4 – Using $(1+x)^n$ for Binomial Expansion

1. Find the first 4 terms of the following expansions using the binomial expansions

a) $(3 + x)^5$

$$243 + 405x + 270x^2 + 90x^3$$

b) $(2 - x)^7$

$$128 - 448x - 672x^2 - 560x^3$$

2. If x is so small that terms of x^3 and higher can be ignored, expand the following $(2x + 3)(1 + 2x)^5$

$$3 + 32x + 140x^2$$