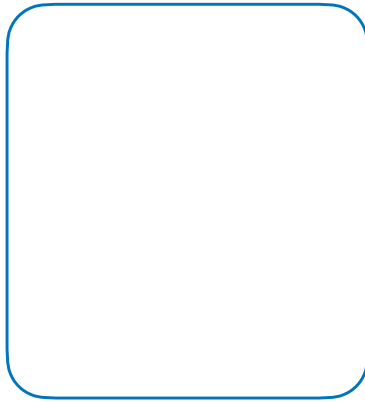




BINOMIAL EXPANSION APPROXIMATIONS

APPROXIMATION

1	2	3	4	5
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- (a) Use the 1st 3 terms of the expansion of $(3 - 2x)^7$ to approximate 2.8^7
- (b) Explain why the expansion $(1 + x)^{15} \approx 1 + 15x + 105x^2 + 455x^3$ can't be used to estimate 2.01^{15}
- (c) Use $x = \frac{1}{10}$ in $(1 - 2x)^{-\frac{1}{2}} \approx 1 + x + \frac{3}{2}x^2 + \frac{5}{2}x^3$ to approximate $\sqrt{5}$

