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5. (a) Expand  $\frac{1}{\sqrt{4-3x}}$ , where  $|x| < \frac{4}{3}$ , in ascending powers of  $x$  up to and including term in  $x^2$ . Simplify each term.

(b) Hence, or otherwise, find the first 3 terms in the expansion of  $\frac{x+8}{\sqrt{4-3x}}$  as a series in ascending powers of  $x$ .

Lined area for student work.