Differentiate the following with respect to x:

(a) $y = \cot 3x$ 2

(b) $f(x) = 5x(4x - 7)^{\frac{1}{2}}.$ 2

Answers:

(a) $-3 \operatorname{cosec}^2 3x$

(b) $5(4x - 7)^{\frac{1}{2}} + 10x(4x - 7)^{-\frac{1}{2}}$