

17p239

$$\begin{aligned}
 1. \quad & f(x) = (2x - 1)(x + 4) \\
 & u = (2x - 1)v = (x + 4) \\
 & u' = 2v' = 1 \\
 & f'(x) = 2x + 8 + 2x - 1 \\
 & f'(x) = 4x + 7
 \end{aligned}$$

$$\begin{aligned}
 2. \quad & g(x) = x(5 - 3x) \\
 & u = xv = (5 - 3x) \\
 & u' = 1v' = -3 \\
 & f'(x) = 5 - 3x + (-3x) \\
 & f'(x) = 5 - 6x
 \end{aligned}$$

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$$\begin{aligned}
 1. \quad & h(x) = x^2(3x + 2) \\
 & u = x^2v = (3x + 2) \\
 & u' = 2xv' = 3 \\
 & f'(x) = 6x^2 + 4x + 3x^2 \\
 & f'(x) = 9x^2 + 4x
 \end{aligned}$$

$$\begin{aligned}
 2. \quad & u(x) = (3x^2 + 2x - 1)(2x - 5) \\
 & u = (3x^2 + 2x - 1)v = (2x - 5) \\
 & u' = (6x^2 + 2)v' = 2 \\
 & u'(x) = 12x^3 - 30x^2 + 4x - 10 + (6x^2 + 10x - 2) \\
 & u'(x) = 12x^3 - 24x^2 + 14x - 12
 \end{aligned}$$

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$x$	-2	-1	1	3	
$f'(x)$	+	0	-	0	+
$f(x)$					