

$a x^2 + b x + c$

$\boxed{12} x^2 - 1 x - 6$

$$\begin{array}{r}
 (12) \cdot (-6) \\
 -72 \\
 2 \quad -36 \quad -34 \\
 4 \quad -18 \quad -14 \\
 \boxed{8 \quad -9 \quad -1}
 \end{array}$$

$$\begin{array}{r}
 \cancel{8} \quad \cancel{2} \quad -9 \quad \boxed{-3} \\
 \hline
 12 \quad 3 \quad 12 \quad 4 \\
 \downarrow \quad \quad \downarrow \quad \downarrow \\
 (3x+2) \quad (4x-3)
 \end{array}$$

$12x^2 - 9x + 8x - 6$

$\boxed{12x^2 - x - 6}$

