



$$(18) \quad 3x^2 + 8x + 4$$

$3x^2$	$4$	$12x^2$
$x$	$2$	$2x$
$3x$	$2$	$6x$

$\downarrow$  GCF  
 $= 8x$

$$\begin{array}{l}
 12 \\
 \swarrow \searrow \\
 1 \cdot 12 \\
 2 \cdot 6 \\
 3 \cdot 4
 \end{array}$$

$$(x+2)(3x+2)$$

2)

$$3x^2 + 5x + 2 = 0$$

$(+5)$   $\frac{1 \cdot 6}{2 \cdot 3}$

$$\frac{(3x+2)}{1} \cdot \frac{(3x+3)}{3}$$

$$(3x+2)(x+1)$$

$$3x^2 + 5x + 2 = 0$$

$3x^2$	$\times 2$	$= 6x^2$
$3x$	$1$	$3x$
$x$	$2$	$2x$

$(3x+2)(x+1)$  + 5x middle term

$$2x^2 - 3x - 2$$

1a)

$$(2x+1)(x-2)$$

$$\begin{array}{r} \underline{2x^2} \quad \begin{array}{r} -4x \\ +1x \\ \hline -3x \end{array} \quad \underline{-2} \end{array}$$


(A)

(B)

(C)

(D)

$$3x^2 - 6x + 3 = 0$$

$$\text{GCF } 3(x^2 - 2x + 1)$$


$$\frac{3(x-1)(x-1) = 0}{3} \quad \text{or}$$

$$(x-1)(x-1) = 0$$

$$x-1=0 \quad x-1=0$$

$$x=1 \quad x=1$$

$$22) \quad 3x^2 + 5x - 2 = 0$$

$+5$   
 $-6$   
 $-1 \cdot 6$   
 $-2 \cdot 3$   
 $1 \cdot -6$   
 $2 \cdot -3$

$-1 + 6 = 5$   
 $-2 + 3 = 1$   
 $1 + -6 = -5$   
 $2 + -3 = -1$

$$(3x - 1)(3x + 6)$$

$$(3x - 1)\left(x + \frac{6}{3}\right)$$

$$3x^2 + 5x - 2 = 0$$

$3x^2$	$-2$	$= -6x^2$
$3x$	$+2$	$+6x$
$x$	$-1$	$-1x$

$(x+2)(3x-1) + 5x$

$$4x^2 - 15x + 9 = 0$$

$$\left. \begin{array}{l} \\ \\ \end{array} \right\} -15$$

$$\wedge \\ 4 \cdot 9 = 36$$

$$\wedge \\ \text{MVA} \\ -12 \cdot -3$$

$$\frac{(4x-12)(4x-3)}{4}$$

$$(x-3)(4x-3)$$



