

#s 3-17, & 21 (1st column)

3.) $3c^2 - 8c + 5$

$3c$	$3c^2$	$-3c$
-5	$-5c$	$+5$

ac

15	
-5	-3
-8	b

ans: $(c-1)(3c-5)$

5.) $5y^2 + 4y - 1$

$5y$	$5y^2$	$+5y$
-1	$-1y$	-1

ac

-5	
5	-1
4	b

ans: $(5y-1)(y+1)$

7.) $5u^2 - 6u - 2$
not factorable
prime

ac

-10	
-6	b

9.) $7x^2 + 8x + 1$

$7x$	$7x^2$	$+7x$
$+1$	$+1x$	$+1$

ac

7	
1	7
8	b

ans: $(7x+1)(x+1)$

11.) $5x^2 - 17x + 6$

$5x$	$5x^2$	$-15x$
-2	$-2x$	$+6$

ac

30	
-15	-2
-17	b

ans: $(5x-2)(x-3)$

$$13) \begin{array}{ccc} a & b & c \\ 3p^2 + 7p - 6 & & \\ & p & +3 \\ \hline (3p) & 3p^2 & +9p \\ -2 & -2p & -6 \end{array}$$

$$\begin{array}{c} ac \\ -18 \\ \hline (9) \quad (-2) \\ \hline 7 \\ b \end{array}$$

$$\text{ans: } (p+3)(3p-2)$$

$$15) \begin{array}{ccc} a & b & c \\ 4y^2 - y - 3 & & \\ & y & -1 \\ \hline (4y) & 4y^2 & -4y \\ +3 & +3y & -3 \end{array}$$

$$\begin{array}{c} ac \\ -12 \\ \hline (-4) \quad (3) \\ \hline -1 \\ b \end{array}$$

$$\text{ans: } (4y+3)(y-1)$$

$$**17) \begin{array}{ccc} c & b & a \\ 5 + 7x - 6x^2 & & \\ & 2x & +1 \\ \hline -3x & -6x^2 & -3x \\ +5 & +10x & 5 \end{array}$$

$$\begin{array}{c} ac \\ -30 \\ \hline (10) \quad (-3) \\ \hline 7 \\ b \end{array}$$

$$\text{ans: } (5-3x)(1+2x)$$

or

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

$$21) \begin{array}{ccc} 3m^2 + 11mn + 6n^2 & & \\ & m & +3n \\ \hline 3m & 3m^2 & +9mn \\ +2n & +2mn & +6n^2 \end{array}$$

$$\begin{array}{c} ac \\ 18 \\ \hline (2) \quad (9) \\ \hline 11 \\ b \end{array}$$

$$\text{ans: } (3m+2n)(m+3n)$$