7-6 Enrichment

Factoring $ax^2 + bx + c$

For each trinomial in the first column, find the binomial factors in the Factor A and Factor B columns. The binomial factors can be used more than once. Sum the numbers corresponding to the positions of the two factors. Then find the letter to the left of the trinomial. Copy the letter into the space at the bottom of the page, above the number that corresponds to the sum you calculated. You will get the answer to the riddle. The first factor pair has been done for you.

Expressions		Factor A	Factor B
v $2x^2 - 7x - 15$	A4, B3 $4 + 3 = 7$	1. $(2x + 1)$	1. $(x - 2)$
e $2x^2 - x - 1$		2. $(4x - 1)$	2. $(x + 1)$
l $3x^2 - 11x - 4$		3. $(3x + 1)$	3. $(x - 5)$
i $3x^2 - x - 10$		4. $(2x + 3)$	4. $(x + 4)$
n $3x^2 + 19x - 14$		5. $(4x - 3)$	5. $(x - 1)$
r $3x^2 + 7x + 2$		6. $(4x + 3)$	6. $(x + 2)$
e $4x^2 + 15x - 4$		7. $(7x - 3)$	7. $(x - 4)$
t $4x^2 + 15x + 9$		8. $(3x - 2)$	8. $(x + 5)$
c $4x^2 + 17x - 15$		9. $(7x + 1)$	9. $(x + 3)$
i $7x^2 + 8x + 1$		10. $(3x + 5)$	10. $(x + 7)$
l $7x^2 + 13x - 2$		11. $(7x - 1)$	
a $7x^2 - 10x + 3$			

Why did the relation need a math tutor?

It failed the $\frac{V}{7}$ $\overline{}$ $\overline{}$ $\overline{}$ $\overline{}$ $\overline{}$ $\overline{}$ $\overline{}$ $\overline{}$ $\overline{}$ $\overline{}$ $\overline{}$ test.
　　　　　　 6　9　15　11　13　12　10　　17　11　18　6

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Factoring $ax^2 + bx + c$

For each trinomial in the first column, find the binomial factors in the Factor A and Factor B columns. The binomial factors can be used more than once. Sum the numbers corresponding to the positions of the two factors. Then find the letter to the left of the trinomial. Copy the letter into the space at the bottom of the page, above the number that corresponds to the sum you calculated. You will get the answer to the riddle. The first factor pair has been done for you.

Expressions		Factor A	Factor B
v $2x^2 - 7x - 15$	A4, B3 $4 + 3 = 7$	1. $(2x + 1)$	1. $(x - 2)$
e $2x^2 - x - 1$	A1, B5 $1 + 5 = 6$	2. $(4x - 1)$	2. $(x + 1)$
l $3x^2 - 11x - 4$	A3, B7 $3 + 7 = 10$	3. $(3x + 1)$	3. $(x - 5)$
i $3x^2 - x - 10$	A10, B1 $10 + 1 = 11$	4. $(2x + 3)$	4. $(x + 4)$
n $3x^2 + 19x - 14$	A8, B10 $8 + 10 = 18$	5. $(4x - 3)$	5. $(x - 1)$
r $3x^2 + 7x + 2$	A3, B6 $3 + 6 = 9$	6. $(4x + 3)$	6. $(x + 2)$
e $4x^2 + 15x - 4$	A2, B4 $2 + 4 = 6$	7. $(7x - 3)$	7. $(x - 4)$
t $4x^2 + 15x + 9$	A6, B9 $6 + 9 = 15$	8. $(3x - 2)$	8. $(x + 5)$
c $4x^2 + 17x - 15$	A5, B8 $5 + 8 = 13$	9. $(7x + 1)$	9. $(x + 3)$
i $7x^2 + 8x + 1$	A9, B2 $9 + 2 = 11$	10. $(3x + 5)$	10. $(x + 7)$
l $7x^2 + 13x - 2$	A11, B6 $11 + 6 = 17$	11. $(7x - 1)$	
a $7x^2 - 10x + 3$	A7, B5 $7 + 5 = 12$		

Why did the relation need a math tutor?

It failed the $\frac{v}{7}$ $\frac{e}{6}$ $\frac{r}{9}$ $\frac{t}{15}$ $\frac{i}{11}$ $\frac{c}{13}$ $\frac{a}{12}$ $\frac{l}{10}$ $\frac{l}{17}$ $\frac{i}{11}$ $\frac{n}{18}$ $\frac{e}{6}$ test.