


What Happened to the Guy Who Lost the Pie-Eating Contest?




Write the expression in factored form. Find your answer below and cross out the letter pair next to it. For each letter pair that you DON'T cross out, write the upper case letter in the box containing the lower case letter.

1. $n^2 + 7n + 12$	4. $w^2 + 13w - 30$	7. $p^2 + 5p - 14$	10. $x^2 + 7xy + 10y^2$
2. $n^2 - 9n + 14$	5. $w^2 - w - 30$	8. $p^2 - 21p + 20$	11. $x^2 + 4xy - 32y^2$
3. $n^2 + 4n - 12$	6. $w^2 + 19w + 18$	9. $p^2 - 8p - 20$	12. $x^2 - 11xy + 10y^2$
h•E $(n - 2)(n + 7)$	e•F $(w + 5)(w - 6)$	t•N $(p + 2)(p - 10)$	j•I $(x - 2y)(x + 5y)$
s•O $(n + 3)(n + 4)$	j•R $(w + 1)(w + 18)$	e•C $(p - 2)(p + 10)$	g•S $(x - 4y)(x + 8y)$
b•T $(n - 2)(n + 6)$	s•E $(w - 3)(w + 10)$	p•L $(p - 2)(p + 7)$	t•D $(x - 2y)(x + 16y)$
n•I $(n - 2)(n - 6)$	c•U $(w - 2)(w + 15)$	k•O $(p - 1)(p - 20)$	f•H $(x - y)(x - 10y)$
q•V $(n - 2)(n - 7)$	b•H $(w + 3)(w + 6)$	q•E $(p - 2)(p - 7)$	o•T $(x + 2y)(x + 5y)$
13. $u^2 + 3u - 70$	16. $c^2 + 16c + 48$	19. $m^2 + 25m + 100$	22. $a^2 + 4ab - 21b^2$
14. $u^2 - 33u - 70$	17. $c^2 + 2c - 48$	20. $m^2 - 15m - 100$	23. $a^2 + 17ab + 72b^2$
15. $u^2 + 14u + 13$	18. $c^2 - 19c + 48$	21. $m^2 + 15m - 100$	24. $a^2 - 18ab - 40b^2$
m•R $(u + 2)(u - 35)$	r•V $(c - 3)(c - 16)$	u•E $(m + 5)(m - 20)$	r•N $(a - 4b)(a + 10b)$
r•Y $(u - 7)(u + 10)$	g•M $(c - 3)(c + 16)$	m•S $(m - 5)(m - 20)$	a•T $(a - 3b)(a + 7b)$
p•K $(u - 1)(u + 13)$	o•E $(c - 6)(c + 8)$	l•T $(m + 5)(m + 20)$	o•C $(a - 3b)(a + 20b)$
f•L $(u + 1)(u + 13)$	a•T $(c + 4)(c + 12)$	d•R $(m - 5)(m + 20)$	i•S $(a + 2b)(a - 20b)$
c•E $(u + 7)(u - 10)$	k•N $(c + 6)(c - 8)$	f•A $(m + 10)(m - 10)$	l•I $(a + 8b)(a + 9b)$



a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u
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Why Didn't the Piano Work?



Factor the expression. Find a factor in each of the two answer columns. One factor will have a letter and the other a number. Write the letter in the matching numbered box at the bottom of the page.

Set 1	Set 1 Answers
a. $x^2 - 6x$	II. x^3 T. $(3x^2 + 10)$
b. $2x^2 + 8x$	6. $2x^2$ O. $(x - 6)$
c. $45x^2 - 20x$	24. $2x$ V. $(8x^2 + 15x)$
d. $9x^3 + 30x$	2. $3x$ S. $(9x - 4)$
e. $8x^5 - 15x^3$	16. x F. $(3x^2 - 4)$
	14. x^2 N. $(8x^2 - 15)$
	8. $5x$ A. $(x + 4)$

Set 3	Set 3 Answers
a. $m^3n + 9m^2n$	10. $5m^2n^2$ L. $(4 - 11m^2n^2)$
b. $10m^3n^2 - 25m^2n^3$	7. $24n$ P. $(7m^4 + 4n)$
c. $49m^5n^3 + 28mn^4$	18. $7mn^4$ S. $(2m - 5mn^2)$
d. $72m^7n + 24n$	1. m^2n W. $(3m^7 + 1)$
e. $8m^3n^4 - 22m^5n^6$	12. $2m^3n^4$ I. $(m + 9)$
	22. $7mn^3$ L. $(4 - 11mn^3)$
	5. $8mn$ O. $(2m - 5n)$

Set 2	Set 2 Answers
a. $8a^3 + 4a^2 + 12a$	7. $2a^2$ Y. $(a^2 - 5a - 2)$
b. $7a^4 - 35a^3 - 14a^2$	6. a^4 P. $(2a^5 - 5a^4 - 3)$
c. $6a^8 + 10a^6 - 3a^4$	15. $15a$ T. $(3 - 2a + 5a^2)$
d. $36a^3 - 24a^4 + 60a^5$	13. $7a^2$ K. $(2a^2 + a + 3)$
e. $30a^6 - 75a^5 - 15a$	9. $3a^2$ H. $(2a^5 - 5a^4 - 1)$
	4. $4a$ O. $(6a^4 + 10a^2 - 3)$
	14. $12a^3$ N. $(3 - 2a - 5a^3)$

Set 4	Set 4 Answers
a. $40x^2 - 100xy - 80y^2$	17. $5xy$ R. $(4x^2 + 3x - 6y)$
b. $12x^5y^2 + 9x^4y^2 - 6x^3y^2$	21. $3x^2y$ N. $(16x^6y^2 + 3x^2y + 1)$
c. $15x^3y - 35x^2y^2 + 40xy^3$	5. $9x^2$ O. $(2x^2 - 5xy - 4y^2)$
d. $144x^8y^2 + 27x^4y + 9x^2$	3. $5x^2$ Y. $(4x^2 + 3x - 2)$
e. $2\pi x^2 - \pi y^2$	25. $3x^3y^2$ L. $(2x^2 - y^2)$
	23. π S. $(3x^2 - 7xy - 4y^2)$
	20. 20 W. $(3x^2 - 7xy + 8y^2)$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
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