



# How Did the Geometry Teacher Feel About Octagons?

Circle the appropriate number-letter pairs in each column. Write the letter in the matching numbered box at the bottom of the page. (HINT: You should circle NINE number-letter pairs in each column.)

Circle the number-letter pair of each expression that is the DIFFERENCE OF TWO SQUARES.

- 27.O**  $9n^2 - 4$
- 8.A**  $w^2 - 49$
- 13.B**  $25a^2 - 8$
- 31.I**  $81k^2 - 100$
- 24.S**  $36e^2 + 1$
- 22.E**  $16d^2 - 225$
- 19.P**  $4t^2 - 12t + 9$
- 2.T**  $x^2 - 9y^2$
- 16.I**  $64a^2 - 121b^2$
- 5.U**  $100p^2 - 18q^2$
- 29.S**  $m^4 - 144$
- 32.D**  $u^3 - 36u$
- 11.O**  $\frac{1}{4}x^2 - 25y^2$
- 17.L**  $49c^4 + 900d^6$
- 25.T**  $49c^4 - 900d^6$

Circle the number-letter pair of each TRINOMIAL SQUARE.

- 5.A**  $k^2 + 10k + 25$
- 17.G**  $x^2 - 16x + 64$
- 21.S**  $y^2 + 10y + 100$
- 26.I**  $y^2 + 20y + 100$
- 13.E**  $4n^2 - 28n + 49$
- 4.H**  $4n^2 + 28n - 49$
- 32.P**  $36w^2 - 12w + 1$
- 23.R**  $25a^2 + 15a + 9$
- 6.S**  $25a^2 + 30a + 9$
- 30.T**  $81g^2 - 18g + 4$
- 24.A**  $c^4 + 8c^2 + 16$
- 12.F**  $9t^2 - 36t + 144$
- 1.I**  $9t^2 - 72t + 144$
- 19.T**  $x^2 + 16xy + 64y^2$
- 28.D**  $x^2 - 16xy - 64y^2$

Circle the number-letter pair of each TRUE STATEMENT.

- 30.H**  $x^2 - y^2 = (x + y)(x - y)$
- 10.L**  $x^2 + 2xy + y^2 = (x + y)^2$
- 9.T**  $x^2 + y^2 = (x + y)^2$
- 21.R**  $x^2 - 2xy + y^2 = (x - y)^2$
- 14.N**  $x^2 + 2xy - y^2 = (x + y)^2$
- 4.W**  $9h^2 - 16 = (3h + 4)(3h - 4)$
- 28.N**  $9h^2 - 24h + 16 = (3h - 4)^2$
- 3.S**  $9h^2 + 16 = (3h + 4)^2$
- 15.E**  $4m^2 + 36n + 81 = (2m + 9)^2$
- 7.N**  $49t^2 - 35t + 25 = (7t - 5)^2$
- 12.V**  $4a^2 - 225b^2 = (2a + 15b)(2a - 15b)$
- 23.L**  $4a^2 - 60ab + 225b^2 = (2a - 15b)^2$
- 10.M**  $64p^2 + 16pq - q^2 = (8p + q)^2$
- 18.H**  $100x^2 - 49y^2 = (10x + 7y)(10x - 7y)$
- 20.O**  $100x^2 - 70xy + 49y^2 = (10x - 7y)^2$

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	26	27	28	29	30	31	32
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