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Corrigendum to the paper "A note on the Diophantine equation $x^2 + q^m = y^3$"

(Acta Arith. 146 (2011), 195–202)

by

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Lemma 2.5 in the above article should be revised. Although it does not affect the final result of the paper, it misleads readers. Its correct version is:

Lemma 2.5 ([13], [15]). *Apart from* $(x, y) = (1, 0)$, *the equation*

$$x^n = Dy^2 + 1, \quad x, y, n, D \in \mathbb{Z},\ n \geq 3,\ 1 \leq D \leq 100,$$

has the solutions

$(x, y) = (3, \pm 11)$	*if* $(n, D) = (5, 2)$;
$(x, y) = (3, \pm 4)$	*if* $(n, D) = (4, 5)$;
$(x, y) = (7, \pm 20)$	*if* $(n, D) = (4, 6)$;
$(x, y) = (2, \pm 1), (4, \pm 3)$	*if* $(n, D) = (3, 7)$;
$(x, y) = (2, \pm 3)$	*if* $(n, D) = (6, 7)$;
$(x, y) = (2, \pm 1)$	*if* $(n, D) = (4, 15)$;
$(x, y) = (3, \pm 2)$	*if* $(n, D) = (4, 20)$;
$(x, y) = (7, \pm 10)$	*if* $(n, D) = (4, 24)$;
$(x, y) = (3, \pm 1), (313, \pm 1086)$	*if* $(n, D) = (3, 26)$;
$(x, y) = (99, \pm 1820)$	*if* $(n, D) = (4, 29)$;
$(x, y) = (5, \pm 2)$	*if* $(n, D) = (3, 31)$;
$(x, y) = (2, \pm 1)$	*if* $(n, D) = (5, 31)$;
$(x, y) = (7, \pm 3)$	*if* $(n, D) = (3, 38)$;
$(x, y) = (5, \pm 4)$	*if* $(n, D) = (4, 39)$;
$(x, y) = (13, \pm 6)$	*if* $(n, D) = (3, 61)$;

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$$(x, y) = (4, \pm 1) \quad \text{if } (n, D) = (3, 63);$$
$$(x, y) = (2, \pm 1) \quad \text{if } (n, D) = (6, 63);$$
$$(x, y) = (3, \pm 1) \quad \text{if } (n, D) = (4, 80);$$
$$(x, y) = (7, \pm 5) \quad \text{if } (n, D) = (4, 96).$$

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References

[13] J. H. E. Cohn, *The Diophantine equation* $x^n = Dy^2 + 1$, Acta Arith. 106 (2003), 73–83.

[15] E. Herrmann, I. Járási and A. Pethö, *Note on J. H. E. Cohn's paper "The Diophantine equation* $x^n = Dy^2 + 1$*"*, ibid. 113 (2004), 69–76.

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