JOURNAL OF THE
AMERICAN MATHEMATICAL SOCIETY
Volume 00, Number 0, Pages 000–000
S 0894-0347(XX)0000-0

JOURNAL OF THE AMERICAN MATHEMATICAL SOCIETY SAMPLE

AUTHOR ONE AND AUTHOR TWO

This paper is dedicated to our advisors.

This is an unnumbered first-level section head

This is an example of an unnumbered first-level heading.

THIS IS A SPECIAL SECTION HEAD

This is an example of a special section head[1].

1. This is a numbered first-level section head

This is an example of a numbered first-level heading.

1.1. **This is a numbered second-level section head.** This is an example of a numbered second-level heading.

This is an unnumbered second-level section head. This is an example of an unnumbered second-level heading.

1.1.1. *This is a numbered third-level section head.* This is an example of a numbered third-level heading.

This is an unnumbered third-level section head. This is an example of an unnumbered third-level heading.

Lemma 1.1. *Let $f, g \in A(X)$ and let E, F be cozero sets in X.*

1. *If f is E-regular and $F \subseteq E$, then f is F-regular.*
2. *If f is E-regular and F-regular, then f is $E \cup F$-regular.*
3. *If $f(x) \geq c > 0$ for all $x \in E$, then f is E-regular.*

The following is an example of a proof.

Received by the editors January 1, 2001 and, in revised form, June 22, 2001.
2000 *Mathematics Subject Classification.* Primary 54C40, 14E20; Secondary 46E25, 20C20.
Key words and phrases. Differential geometry, algebraic geometry.
The first author was supported in part by NSF Grant #000000.
Support information for the second author.

[1]Here is an example of a footnote. Notice that this footnote text is running on so that it can stand as an example of how a footnote with separate paragraphs should be written.

And here is the beginning of the second paragraph.

Proof. Set $j(\nu) = \max(I\backslash a(\nu)) - 1$. Then we have

$$\sum_{i\notin a(\nu)} t_i \sim t_{j(\nu)+1} = \prod_{j=0}^{j(\nu)} (t_{j+1}/t_j).$$

Hence we have

$$\begin{aligned}\prod_\nu \Big(\sum_{i\notin a(\nu)} t_i\Big)^{|a(\nu-1)|-|a(\nu)|} &\sim \prod_\nu \prod_{j=0}^{j(\nu)} (t_{j+1}/t_j)^{|a(\nu-1)|-|a(\nu)|} \\ &= \prod_{j\geq 0} (t_{j+1}/t_j)^{\sum_{j(\nu)\geq j}(|a(\nu-1)|-|a(\nu)|)}.\end{aligned} \tag{1.1}$$

By definition, we have $a(\nu(j)) \supset c(j)$. Hence, $|c(j)| = n - j$ implies (5.4). If $c(j) \notin a$, $a(\nu(j))c(j)$ and hence we have (5.5). $\square$

> This is an example of an 'extract'. The magnetization M_0 of the Ising model is related to the local state probability $P(a) : M_0 = P(1) - P(-1)$. The equivalences are shown in Table 1.

TABLE 1

	$-\infty$	$+\infty$
$f_+(x,k)$	$e^{\sqrt{-1}kx} + s_{12}(k)e^{-\sqrt{-1}kx}$	$s_{11}(k)e^{\sqrt{-1}kx}$
$f_-(x,k)$	$s_{22}(k)e^{-\sqrt{-1}kx}$	$e^{-\sqrt{-1}kx} + s_{21}(k)e^{\sqrt{-1}kx}$

Definition 1.2. This is an example of a 'definition' element. For $f \in A(X)$, we define

$$\mathcal{Z}(f) = \{E \in Z[X] : f \text{ is } E^c\text{-regular}\}. \tag{1.2}$$

Remark 1.3. This is an example of a 'remark' element. For $f \in A(X)$, we define

$$\mathcal{Z}(f) = \{E \in Z[X] : f \text{ is } E^c\text{-regular}\}. \tag{1.3}$$

Example 1.4. This is an example of an 'example' element. For $f \in A(X)$, we define

$$\mathcal{Z}(f) = \{E \in Z[X] : f \text{ is } E^c\text{-regular}\}. \tag{1.4}$$

Exercise 1.5. This is an example of the `xca` environment. This environment is used for exercises which occur within a section.

The following is an example of a numbered list.

(1) First item. In the case where in G there is a sequence of subgroups

$$G = G_0, G_1, G_2, \dots, G_k = e$$

such that each is an invariant subgroup of G_i.

(2) Second item. Its action on an arbitrary element $X = \lambda^\alpha X_\alpha$ has the form

$$[e^\alpha X_\alpha, X] = e^\alpha \lambda^\beta [X_\alpha X_\beta] = e^\alpha c^\gamma_{\alpha\beta} \lambda^\beta X_\gamma, \tag{1.5}$$

(a) First subitem.

$$-2\psi_2(e) = c^\delta_{\alpha\gamma} c^\gamma_{\beta\delta} e^\alpha e^\beta.$$

FIGURE 1. This is an example of a figure caption with text.

FIGURE 2

(b) Second subitem.
 (i) First subsubitem. In the case where in G there is a sequence of subgroups

$$G = G_0, G_1, G_2, \ldots, G_k = e$$

 such that each subgroup G_{i+1} is an invariant subgroup of G_i and each quotient group G_{i+1}/G_i is abelian, the group G is called *solvable*.
 (ii) Second subsubitem.
(c) Third subitem.
(3) Third item.

Here is an example of a cite. See [1].

Theorem 1.6. *This is an example of a theorem.*

Theorem 1.7 (Marcus Theorem)**.** *This is an example of a theorem with a parenthetical note in the heading.*

2. Some more list types

This is an example of a bulleted list.

- $\mathcal{J}_g$ of dimension $3g-3$;
- $\mathcal{E}^2_g = \{$Pryms of double covers of $C = \Box$ with normalization of C hyperelliptic of genus $g-1\}$ of dimension $2g$;
- $\mathcal{E}^2_{1,g-1} = \{$Pryms of double covers of $C = \Box^H_{P^1}$ with H hyperelliptic of genus $g-2\}$ of dimension $2g-1$;
- $\mathcal{P}^2_{t,g-t}$ for $2 \leq t \leq g/2 = \{$Pryms of double covers of $C = \Box^{C'}_{C''}$ with $g(C') = t-1$ and $g(C'') = g-t-1\}$ of dimension $3g-4$.

This is an example of a 'description' list.

Zero case: $\rho(\Phi) = \{0\}$.
Rational case: $\rho(\Phi) \neq \{0\}$ and $\rho(\Phi)$ is contained in a line through 0 with rational slope.
Irrational case: $\rho(\Phi) \neq \{0\}$ and $\rho(\Phi)$ is contained in a line through 0 with irrational slope.

References

1. T. Aoki, *Calcul exponentiel des opérateurs microdifferentiels d'ordre infini.* I, Ann. Inst. Fourier (Grenoble) **33** (1983), 227–250.
2. R. Brown, *On a conjecture of Dirichlet*, Amer. Math. Soc., Providence, RI, 1993.
3. R. A. DeVore, *Approximation of functions*, Proc. Sympos. Appl. Math., vol. 36, Amer. Math. Soc., Providence, RI, 1986, pp. 34–56.

Abstract. This paper is a sample prepared to illustrate the use of the American Mathematical Society's LaTeX document class `amsart` and publication-specific variants of that class for AMS-LaTeX version 2.

Department of Mathematics, Louisiana State University, Baton Rouge, Louisiana 70803

Current address: Department of Mathematics and Statistics, Case Western Reserve University, Cleveland, Ohio 43403

Email address: `xyz@math.university.edu`

Mathematical Research Section, School of Mathematical Sciences, Australian National University, Canberra ACT 2601, Australia

Email address: `two@maths.univ.edu.au`