SUMMARIES OF ARTICLES PUBLISHED IN THIS ISSUE

(Publication of these summaries is permitted)

MIROSLAV SOVA, Praha: *Concerning the characterization of generators of distribution semigroups*. Čas. pěst. mat. *105* (1980), 329—340. (Original paper.)

A new characteristic property of generators of distribution semigroups of operators, based only on the behavior of their resolvents on a real halfaxis, is given.

JANUSZ MATKOWSKI, Bielsko-Biała: *Fixed point theorems for contractive mappings in metric spaces*. Čas. pěst. mat. *105* (1980), 341—344. (Original paper.)

Let (X, d) be a complete metric space. Two fixed point theorems are proved for contractive mappings $T: X \to X$ for which the distance $d(Tx, Ty)$ is estimated by all of the remaining distances between the points x, y, Tx and Ty.

I. I. MIKHAILOV (И. И. Михайлов), Иваного: *Некоторые диофантовы уравнения третьей степени.* (Some diophantine equations of the third degree.) Čas. pěst. mat. *105* (1980), 350—353. (Original paper.)

It is proved that there exist infinitely many parametric solutions in integers of the diophantine equation $x^3 + y^3 + z^3 + 2t^3 = 0$ and the system of diophantine equations $z^3 = x^3 + y^3 + 2t^3 = x_1^3 + y_1^3 + 2t_1^3 = x_2^3 + y_2^3 + 2t_2^3 = x_3^3 + y_3^3 + 2t_3^3$. In this note it is demonstrated that the diophantine equations $x^3 + y^3 + 2t^3 = \mu z^4$, $x^3 + y^3 + 2t^3 = z^{6k}$, $x^3 + y^3 + z^3 + 2t^{9k} = 0$ have infinitely many integral solutions as well.

JARMILA NOVOTNÁ, Praha: *Discrete analogues of Wirtinger's inequality for a two-dimensional array*. Čas. pěst. mat. *105* (1980), 354—362. (Original paper.)

In the paper discrete inequalities for finite double sums involving x_{ij}^2, $(x_{ij} - x_{i+1,j})^2 + (x_{ij} - x_{i,j+1})^2$ („symmetrical" case) and x_{ij}^2, $(x_{ij} - x_{i+1,j})^2$ („asymmetrical" case) are studied.

ZBYNĚK NÁDENÍK, Praha: *Eine isoperimetrische Ungleichung für die Paare der Raumkurven*. Čas. pěst. mat. *105* (1980), 363—367. (Originalartikel.)

Für die Längen dieser Kurven und für ein Seitenstück zu den gemischten Flächeninhalten ihrer Projektionen auf drei orthogonale Ebenen gilt eine Ungleichung, welche die alte isoperimetrische Ungleichung umfasst.