This implies the following equations for G and R :

$$\begin{aligned} G'_x + \frac{\pi}{\theta} \int \int_{\substack{0 \leq y \leq \infty \\ -1 \leq \tau \leq 1}} y^2 \tau V'(y) G(y) G(\sqrt{x^2 + y^2 - 2yx\tau}) dy d\tau \\ + \frac{\pi}{\theta} \int \int_{\substack{0 \leq y \leq \infty \\ -1 \leq \tau \leq 1}} y^2 \tau V'(y) R^*(y) R(\sqrt{x^2 + y^2 - 2yx\tau}) dy d\tau = 0, \\ R'_x + \frac{1}{2\theta} V'(x) R + \frac{\pi}{\theta} \int \int_{\substack{0 \leq y \leq \infty \\ -1 \leq \tau \leq 1}} y^2 \tau V'(y) G(y) R(\sqrt{x^2 + y^2 - 2yx\tau}) dy d\tau \\ + \frac{\pi}{\theta} \int \int_{\substack{0 \leq y \leq \infty \\ -1 \leq \tau \leq 1}} y^2 \tau V'(y) R(y) G(\sqrt{x^2 + y^2 - 2yx\tau}) dy d\tau = 0. \end{aligned} \quad (4)$$

$$G(x) + 2\pi \iint dy d\tau y^2 G(\sqrt{x^2 + y^2 - 2yx\tau}) G(y) = 2\pi \iint dy d\tau y^2 R^*(\sqrt{x^2 + y^2 - 2yx\tau}) R(y). \quad (5)$$

The variational equation for (3) near the solution $\varphi = \text{const}$ gives the first point

$$\theta = -\frac{N}{V} \min_p \tilde{V}(p),$$

which apparently can be regarded as the point of phase transition from gas to liquid. Indeed, the solution $\varphi = 0$ gives a constant correlation function $\Phi\Phi^*$ and hence corresponds to the gaseous state.

This means that for temperatures less than the phase transition temperature there exist nontrivial solutions of Eqs. (4) and (5).

In conclusion, I express my deep gratitude to G. V. Koval', who assisted me in carrying out laborious calculations.

The research was partially supported by the Russian Foundation for Basic Research under grant No. 96-01-01544.

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Mathematical Notes, Vol. 64, No. 1, 1998

Erratum

To the article "Functions of Two Variables Continuous Along Straight Lines," by E. E. Shnol' [*Mathematical Notes*, 62, No. 2, 255-259 (1997)].

The statement of Theorem 1 in the article was incorrectly translated. It should read:

Theorem 1. For a set F in the plane to be the set J_1 for a certain function of class C_1 continuous along each line, it is necessary for the following conditions to hold:

- (a) the projection of F onto any line is a nowhere dense set;
- (b) the directions in which points of F are seen from any point O constitute a nowhere dense set.