D	*N*	*P*	*Q*	*L*	*O*	*H*	*A*	*A*	*B*	*B*	*C*	*C*	*F*	*F*	*K*	*K*	*J*	*J*	*G*	*G*
E	*R*	*U*	*T*	*M*	*S*	*I*	*N*	*R*	*H*	*I*	*H*	*I*	*D*	*E*	*D*	*E*	*D*	*E*	*D*	*E*
A	*B*	*F*	*C*	*J*	*K*	*G*	*O*	*S*	*L*	*M*	*M*	*L*	*L*	*M*	*I*	*H*	*H*	*I*	*M*	*K*
B	*F*	*C*	*J*	*K*	*G*	*A*	*P*	*T*	*P*	*Q*	*N*	*O*	*Q*	*O*	*N*	*Q*	*O*	*P*	*P*	*N*
C	*J*	*K*	*G*	*A*	*B*	*F*	*Q*	*U*	*T*	*U*	*S*	*R*	*S*	*T*	*T*	*R*	*U*	*S*	*R*	*U*

The lower left hand group of blocks constitutes the design (b), and the lower right hand group of blocks is the GD design with parameters $v = b = 14$, $r = k = 4$, $\lambda_1 = 0$, $\lambda_2 = 1$, $m = 7$, $n = 2$. The groups are (D, E), (N, R), (P, U), (Q, T), (L, M), $O, S)$, and (H, I). Thus, for example, D occurs zero times with E in the GD design and once with N, R, P, U, Q, T, L, M, O, S and I.

A design with these parameters was obtained in [4] using the method of differences and is listed as number R24 in [5]. For $s = 3$ the resulting design has parameters,

$$v = b = 78, r = k = 9, \lambda_1 = 0, \lambda_2 = 1, m = 13, n = 6.$$

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ALTERNATIVE PROOF OF A THEOREM OF BIRNBAUM AND PYKE

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Let $U_1, U_2, \cdots, U_n$ be an ordered sample of a random variable (r.v.) X having a uniform distribution (0, 1). If i^* is the value of $i = 1, 2, \cdots, n$ at which $i/n - U_i$ is maximized and $U^* = U_{i^*}$, then U^* is a r.v. with values (0, 1). The probability that the sample cannot be ordered or that i^* is not uniquely defined is zero, and hence these possibilities are neglected. Theorem 3 [1] states that U^* has a uniform distribution (0, 1). Another proof of this fact was given in [2].

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