Hietarinta example 2 (ISSAC 92)

`hieta-2`

February 24, 1997

Variables: $a\ ;\ b\ ;\ c\ ;\ j\ ;\ k\ ;\ l\ ;\ m\ ;\ n\ ;\ p\ ;\ v$

Equations:

$-abk + ack + bkl - ckl - b^2p + c^2p + bk;$
$-c^2k + acl + blm - ckn + ac + c^2 + bm;$
$a^2b - a^2c + 2b^2k - 2c^2k - abl + acl + bl^2 - cl^2 - abm + acm - ab - b^2 + c^2 + bl - cl;$
$-ac^2 + acj - bcm - c^2m + acn + bln - cln + c^2v + bn - cn;$
$b^2k + bjk - abl - clm - b^2;$
$bjm - cmn + bc;$
$ab^2 - abj + bjl - cjl + b^2m + bcm - abn - b^2v;$
$bcj - bcn + bjn - cjn;$
$-2bk^2 + ck^2 - akl - klm - k^2n + abp - blp + cmp - lnp + bk;$
$-bkm - ckm - 2kmn + bcp - n^2p + ck + bm + cm;$
$abk - ack - bkl - ckm - l^2m + kln - kmn + b^2p - bk + cm - lm - ln;$
$-c^2k + cjk - clm - cm^2 - bkn + amn - lmn - m^2n + kn^2 + cmv + bn - mn - n^2;$
$-2abk + a^2l + bkl + ckl - al^2 - 2bkm - lm^2 + akn + cnp + bkv + ab - bl - ln;$
$-2bck + acl - bm^2 - ckn + amn - lmn - m^2n + kn^2 + bmv + bc + cl + cn - n^2;$
$-b^2k - bjk + abl + clm - jlm - ckn - kn^2 - lnv + b^2 + cn;$
$cjl - cln - jmn + an^2 - mn^2 + bnv + cnv - n^2v;$
$-bk^2 + ck^2 - jk^2 + k^2n - jlp - bmp + cmp + lnp - ak + np;$
$ckl - ckm - jkm + l^2m - kln - jnp + cm + lm - kn + ln + n;$
$abk - ack + jkl + bkm - ckm - jkm - kln + kmn - bk - ck - jl - l^2 - bm + cm - kn + ln - l + n;$
$-c^2k + ajm - clm - cm^2 - jm^2 + ckn + 2jkn + cmv + lnv - cm - jn - ln + nv - n;$
$-bkl + jkl + bkm - l^2m + kmn + jnp - bk - jl - bm - lm;$
$b^2k - bjk + blm + bm^2 - 2jkn - amn + m^2n - jlv - bmv - jl + jn;$
$bjm - cmn - jn;$
$3ak^2 + 2k^2m - a^2p + alp + m^2p - k^2v - lpv - 2ak - bp + np;$
$2ck^2 + akm + 2k^2n - acp + clp + lnp - kmv - npv - ck - am + km + lm + m^2 - 3kn + np + n;$
$ck^2 + akm + klm + k^2n - acp + mnp + klv - kmv + 2bk - ck + kl - am + m^2 - 2kn - bp - lv - b - l + n;$
$2ckm + jkm + kmn - c^2p + jnp - 2cm + kn - n;$
$akl + 2klm - abp - bmp + mnp + klv + npv + bk - lm + kn - lv - b;$

$ckl + bkm + l^2m - kln + kmn - bcp - bm + lm - kn + ln + n;$
$jkl + lm^2 + akn + kln - 2kmn - bjp + bkv + l^2v - 2knv - lv^2 + bl - jl - an + 2mn - bv + nv;$
$jlm + ckn + kn^2 + lnv - cn;$
$-bk^2 + 2ck^2 + jk^2 + akl + klm - acp + clp + jlp - bmp + ak - ck + km + cp + jp;$
$2ack - ajk - a^2l - bkl - ckl + al^2 + 2ckm + lm^2 - bjp - ckv - a^2 - ac - bk - ck + 2al + cl + jl + m^2 + a + c + j;$
$abk - ack + ckl - jkl + bkm + jkm + l^2m - c^2p - jk + jl - bm + lm + j;$
$c^2k + bjk + j^2k - acl - blm + ckn + lmn + jlv - ac - c^2 - bj - bm + mn + jv;$
$bkm + ckm + 2jkm - bcp + j^2p + bk - bm - cm;$
$2bck + bjk - j^2k - abl - ajm + jlm + cm^2 + jm^2 - cmv - ab - bc - bj + j^2 + bl + jm + b;$
$b^2k + cjk - j^2k - ajm + blm + jlm + bm^2 + jm^2 - bkn - bmv - cj + j^2 + bm;$
$-aj^2 + bjl + j^2m - bln + jmn - bjv - cjv + j^2v + bj - bn;$
$k^2 + jp + mp - np;$
$ck^2 - akl + akm - klm + k^2n + cmp - kmv - npv - ak - 2jk + kl - am - km + lm + m^2 - kn + jp + j + k + m;$
$bk^2 - ck^2 + jk^2 - k^2n + bmp - cmp + jmp - mnp - 2jk + 2kn + j - n;$
$-ckl + jkl + ckm - l^2m + kmn + j^2p - jkv + knv - ck - jl - cm - lm + jv - nv;$
$-bk^2 - jk^2 + akl - akm + klm - bmp + kmv + jpv + jk + kl + am - lm - m^2 + 2kn + np - n;$
$-bkl + ckl + bkm - ckm - jkm + kmn - jkv + knv - bk - jk + l^2 - bm + cm - kn + jv - nv + j + l + n;$
$bkl - bkm - jkm + l^2m - kln - n^2p - jkv + knv + bm + lm - kn + ln + jv - nv + n;$
$-2j^2k + jl^2 - l^2n + 2kn^2 - jlv - jmv + lnv + mnv + jv^2 - nv^2 + j^2 + jl - ln - n^2 + nv;$
$-3ak^2 - 2k^2m + a^2p - alp - m^2p + k^2v + lpv + 2ak - ap + cp - jp + pv;$
$-akl - 2klm + acp + cmp - jmp - klv - jpv - ak - ck - jk - 2km + lm - kv + lv + c + m + v;$
$-bk^2 - jk^2 - akm - klm + abp - jmp - klv + kmv + bk - 2ck + 2jk + kl + am - km - m^2 - cp - kv + lv + c - j + k - l + v - 1;$
$-ajk - jkl + 2jkm - lm^2 - kln + cnp - ckv + 2jkv - l^2v + lv^2 + aj - jk - cl - 2jm - m^2 - kn + ln + cv - jv - 2lv + v^2 - c + n - v;$
$-2bk^2 - 2jk^2 - akm + abp - blp - jlp + kmv + jpv + bk + 3jk + am + km - lm - m^2 - bp - j - m;$
$-bkl + jkl - ckm - jkm - l^2m + bcp - bk - jl + cm - lm;$
$-2bkm - jkm - kmn + b^2p - jnp + jk + 2bm - j;$
$-bjk - j^2k - lmn - jlv + bj - mn - jv;$
$-ak^2 + 2k^2m - alp + m^2p + 3k^2v + lpv - pv^2 + 2ak - 4km - ap + cp - jp - 4kv + pv - a + 2m + v;$
$-k^2 + bp - cp - mp + 2k - 1;$
$-ck^2 - 2jk^2 + klm + k^2n - clp - jlp + mnp + klv + jpv + 2ck + 3jk + km - lm - 2kn - cp - jp + kv - lv - c - j - m + n - v;$
$ak^2 - 2k^2m + alp - m^2p - 3k^2v - lpv + pv^2 - 2ak + 4km - bp + np + 4kv + a - 2m - v;$
$-bk^2 + ck^2 - jk^2 + k^2n - blp + clp - jmp + mnp + 2bk - 2ck + 2jk - 2kn - bp - kv - b + c - j + n + v;$
$bk^2 - jk^2 - klm + 2k^2n + blp - jmp + lnp - klv - npv - 2bk + 2jk + lm - 3kn + lv + b - j + n;$

$$-jkl + kln - j^2p + n^2p + jkv - knv + jl + kn - ln - jv + nv - n;$$

Communicated by M. Moeller

References

[1] D. Bini and B. Mourrain. Polynomials test suite. 1996.