M.C.D. e m.c.m. tra monomi

PASSED

calcola il m.c.m. tra i seguenti gruppi di monomi		
1	$3x^4\ ;\ 12x^2y\ ;xy^5z$	$12x^4y^5z$
2	$12ab^3\ ;\ 15a^4b^2c^3\ ;24a^3c$	$120a^4b^3c^3$
3	$-\frac{1}{2}a^3b\ ;\ -3ab^2$	a^3b^2
4	$6x^2y\ ;\ -\frac{1}{2}xy^2z\ ;\ \frac{2}{3}x^3yz$	x^3y^2z
5	$10x^3y^2,\ \ -15xy^3$	$30x^3y^3$
6	$12xy^2z,\ \ -8x^3yz$	$24x^3y^2z$
7	$8abc^2,\ \ -10a^2b^2c^2,\ \ 12ab^3c^4$	$120a^2b^3c^4$
8	$-12x^3y,\ \ -3x^2y^3z,\ \ 15xy^2$	$60x^3y^3z$
9	$-2x^2yz,\ \ 6x^3y^2z^3,\ \ -10xy$	$30x^3y^2z^3$
10	$a^2bc^4,\ \ a^5bcx^4,\ \ a^{10}b^4x$	$a^{10}b^4c^4x^4$
11	$\frac{2}{3}a^2bc,\ \ -\frac{3}{4}ab^2,\ \ \frac{1}{5}ab^3c^2$	$a^2b^3c^2$
12	$-4x^3y^3z,\ \ 15xy^2u,\ \ -3x^8z^8u^2$	$60x^8y^3z^8u^2$
13	$6a^3b^2,\ \ 9a^2b^3c,\ \ 21abc^2$	$126a^3b^3c^2$
14	$6x^2y,\ \ -\frac{1}{2}xy^2z,\ \ \frac{2}{3}x^3yz$	x^3y^2z
15	$x^2y,\ \ xy^2,\ \ z$	x^2y^2z
16	$14x^3y^2,\ \ xy,\ \ 4x^3y^4,$	$28x^3y^4$
17	$4ab^2,\ \ a^3b^2,\ \ 5ab^5$	$20a^3b^5$
18	$4a^2y,\ \ y^3c,\ \ 15ac^5$	$60a^2c^5y^3$
19	$13xyc^2,\ \ x^2y^3c^2,\ \ 6c^4$	$78c^4x^2y^3$

20	$30ab^2c^4,\ 5a^2c^3,\ 12abc$	$60a^2b^2c^4$
21	$\frac{2}{3}x^2y^2,\ \frac{1}{6}xy^2z,\ \frac{2}{5}xyz^2$	$x^2y^2z^2$
22	$-3a^3b^2,\ 4a^2bc,\ -2ab^3c^2$	$12a^3b^3c^2$
23	$-\frac{2}{3}x^2y,\ 3xy^2z,-\frac{1}{4}x^3yz^2$	$x^3y^2z^2$

calcola il M.C.D. tra i seguenti gruppi di monomi

24	$12a^3b^2\ ;\ 16a^2b$	$4a^2b$
25	$14a^3b^4c^2\ ;\ 4ab^2\ ;\ 8a^2b^3c$	$2ab^2$
26	$\frac{1}{4}x^3yz^2; 5x^2yz^3; 7xy^4z^2$	xyz^2
27	$3x^4\ ;\ 12x^3y\ ;\ xy^5$	x
28	$12a^2b^3\ ; 15a^4b^2c^3;\ 24a^3c^2$	$3a^2$
29	$x^my^mz^m,\ x^{2m}y^mz^{2m},\ x^{2m}y^{4m}z^{4m}$	$x^my^mz^m$
30	$5x^3y^2z^3,\ \frac{1}{8}xy^2z^2,\ 7x^3yz^2$	xyz^2
31	$14x^3y^2,\ xy,\ 4x^3y^4$	xy
32	$-\frac{1}{4}ab^2c,\ -3a^2b^2c,\ -\frac{1}{2}b^2c^2$	a^2b^2c
33	$\frac{2}{3}x^2y^2,\ \frac{1}{6}xy^2z,\ \frac{2}{5}xyz^2$	xy
34	$-3a^3b^2c,\ 6a^2b,\ -12a^2b^2c^3$	a^2b
35	$-4a^2b^2,\ \frac{2}{5}a^2b^3c^2,\ -\frac{3}{4}a^3b^4c$	a^2b^2
36	$5a^3b, 2a^2b^2$	a^2b

37	$-8a^2b^3, 2ab^2$	$2ab^2$
38	$3a^2b^2, 12a^2b$	$3a^2b$
38	$-15x^2y, 10x^2y^2$	x^2y
40	$-12a^3b^4c, 32a^2b^3c^2, -20ab^2c^3$	$4ab^2c$
41	$-10ab^2, 15a^2b^2c, 35a^2b^3$	$5ab^2$
42	$50a^3b^2, 65a^2c^3, 45b^3c^2$	5
43	$a^2bc^4, a^5bcx^4, a^{10}b^4x$	a^2b
44	$-\frac{2}{3}a^2bc, \frac{3}{4}a^3b^2c^2, \frac{1}{2}ab^3c$	abc

determina la parte letterale del M.C.D. dei seguenti monomi

45	$-\frac{1}{2}ab^3c^2, -\frac{1}{3}a^2bc^2, \frac{1}{4}a^3bc^3$	abc^2
46	$a^2b, abc^3, a^3b^3, b^5c^4$	b
47	$ax^2, ax^2y^2, a^2xy^3, axy$	ax
48	$-\frac{1}{2}x^3y^6z^3, \frac{1}{4}axy, -\frac{3}{2}a^2x^2yz$	xy
49	$x^my^m, x^{2m}y^m, x^{2m}y^{4m}$ $con\ m \in N$	x^my^m
50	$x^my^mz^m, x^{2m}y^mz^{2m}, x^{2m}y^{4m}z^{4m}$ $con\ m \in N$	$x^my^mz^m$
51	$5x^3y^2z^3, \frac{1}{8}xy^2z^2, 7x^3yz^2$	xyz^2
52	$14x^3y^2, xy, 4x^3y^4$	xy
53	$-\frac{1}{4}ab^2c, -3a^2b^2c, -\frac{1}{2}b^2c^2$	b^2c

54	$\frac{2}{3}x^2y^2, \frac{1}{6}xy^2z, \frac{2}{5}xyz^2$	xy
55	$-3a^3b^2c, 6a^2b, -12a^2b^2c^3$	a^2b
56	$-4a^2b^2, \frac{2}{5}a^2b^3c^2, -\frac{3}{4}a^3b^4c$	a^2b^2

calcola il M. C. D. e il m. c. m. tra i seguenti gruppi di monomi

57	$3a;\ \ 2ab;\ \ -5bc$	$MCD: 1$ $mcm: 30abc$
58	$-2ab;\ 3a;\ 6abc$	$MCD: a$ $mcm: 6abc$
59	$\frac{1}{2}a^2bc;\ \ -2ab^3x;\ \ \frac{1}{3}a^2b^2x$	$MCD: ab$ $mcm: a^2b^3cx$
60	$-ab^4;\ \ 2a^2b;\ \ 2ab^3$	$MCD: ab$ $mcm: 2a^2b^4$
61	$a^5b^6c;\ \ \frac{1}{7}a^2c^2x;\ \ 2x^6c$	$MCD: c$ $mcm: a^5b^6c^2x^6$
62	$\frac{3}{5}x^3y^3z;\ \ x^8y^6z^2;\ \ \frac{2}{3}x^4y^3$	$MCD: x^3y^3$ $mcm: x^8y^6z^2$
63	$2m^2nz^3;\ \ 7m^3n^2z^4;\ \ \frac{1}{4}m^2n^4z^2$	$MCD: m^2nz^2$ $mcm: m^3n^4z^4$
64	$8u^2v^5z^4;\ \ 2u^3v^9z^3;\ \ 4u^2v^4z^6$	$MCD: 2u^2v^4z^3$ $mcm: 8u^3v^9z^6$
65	$\frac{1}{7}a^3c^5;\ \ \frac{2}{5}a^2b^3c^3;\ \ \frac{3}{4}ab^2c^6$	$MCD: ac^3$ $mcm: a^3b^3c^6$
66	$2m^2np^4;\ \ 3m^6n^2p^5;\ \ m^2n^3p^6$	$MCD: m^2np^4$ $mcm: 6m^6n^3p^6$
67	$9x^2y^4z;\ \ 3xz^4;\ \ yz^2$	$MCD: z$ $mcm: 9x^2y^4z^4$
68	$3a^2b^2m^2;\ \ a^5m^2n;\ \ 9a^4b^4mn$	$MCD: a^2m$ $mcm: 9a^5b^4m^2n$
69	$\frac{7}{3}p^4q^2r^5;\ \ 6pq^3;\ \ 2p^2q^2r$	$MCD: pq^2$ $mcm: p^4q^3r^5$
70	$\frac{2}{3}xy^3z;\ \ 3x^2y^3;\ \ -2x^3y^3z$	$MCD: xy^3$ $mcm: x^3y^3z$

71	$14a^2b;\ \ 7a^4b^3c^5;\ \ 28ab^4c^3$	MCD: $7ab$ mcm: $28a^4b^4c^5$
72	$5m^2n^5p^3;\ \ -10m^3p^2;\ \ 4mn^6r^3$	MCD: m mcm: $20m^3n^6p^3r^3$
73	$\frac{3}{2}a^5x^3;\ \ -7a^4b^6xy;\ \ ab^3cxy^3$	MCD: ax mcm: $a^5b^6cx^3y^3$
74	$\frac{11}{2}m^3nx^3y^4;\ \ \frac{1}{5}mxy;\ \ -5m^3n^5x^4$	MCD: mx mcm: $m^3n^5x^4y^4$
75	$9x^2y^4z;\ \ 3xz^4;\ \ 6yz^2$	MCD: $3z$ mcm: $18x^2y^4z^4$
76	$xyz;\ \ yz;\ \ xz$	MCD: z mcm: xyz
77	$2x^4;\ \ 4x^2y^2;\ \ 6x^2y^2$	MCD: $2x^2$ mcm: $12x^4y^2$
78	$a^4b^3;\ \ a^6b^2;\ \ 3a^5b^4$	MCD: a^4b^2 mcm: $3a^6b^4$
79	$3x^3y^3;\ \ 9x^2y^3;\ 12x^4y$	MCD: $3x^2y$ mcm: $36x^4y^3$
80	$3a^3b^2;\ \ 6a^4b^3;\ \ 27a^2b^5$	MCD: $3a^2b^2$ mcm: $54a^4b^5$
81	$a^4b^2c^6;\ \ 3ab^5;\ \ 2a^6bc^4$	MCD: ab mcm: $6a^6b^5c^6$
82	$10x^2y^3;\ \ 15x^7y;\ 45x^3y^4z^5$	MCD: $5x^2y$ mcm: $90x^7y^4z^5$
83	$4x^3y^2;\ \ 3x^2z^3;\ 5yz$	MCD: 1 mcm: $60x^3y^2z^3$
84	$2x^4y^5;\ \ 3xy^6z;\ 5xz^5$	MCD: x mcm: $30x^4y^6z^5$
85	$100x^3y^3z^2;\ \ 20xyz^5;\ 10xz^4$	MCD: $10xz^2$ mcm: $100x^3y^3z^5$
86	$2bc^2;\ \ 18ab^5c^4;\ \ 6a^2b^2c^3$	MCD: $2bc^2$ mcm: $18a^2b^5c^4$
87	$10byz;\ \ 16by^3z^4;\ \ 20y^2z^4t^3$	MCD: $2yz$ mcm: $80by^3z^4t^3$

88	$2a^2b^2;\ -6a^2b^3;\ 9a^3b^3c$	$MCD:\ a^2b^2$ $mcm:\ 18a^3b^3c$
89	$-15x^4y^2z,\ 30x^2y^4, -40xy^2z^3$	$MCD:\ 5xy^2$ $mcm:\ 120x^4y^4z^3$
90	$4x^2yz^3;\ 20\,xyzt\ ;\ 12x^3y^2z^4$	$MCD: 4xyz$ $mcm: 60x^3y^2z^4t$
91	$18b^2c^4;\ 9a^2b^2\ ;\ 3ac$	$MCD: 3$ $mcm: 18a^2b^2c^4$
92	$4x^2yz^6;\ 5x^2y^3;\ 100x^2y^2z^5$	$MCD: x^2y$ $mcm: 100x^2y^3z^6$
93	$a^2x^3;\ a^3xt^2\ ;\ 2ax^2t$	$MCD: ax$ $mcm: 2a^3x^3t^2$
94	$c^m t^{n+1} z^{m+n};\ c^{m+n} t^{n+2} z^m \quad (con\ m,n \in N)$	$MCD: c^m t^{n+1} z^m$ $mcm: c^{m+n} t^{n+2} z^{m+n}$
95	$8xy^3z;\ 32x^2yz^4;\ 36x^4z^2$	$MCD: 4xz$ $mcm: 288x^4y^3z^4$
96	$35a^3b^4;\ 20a^2c^2;\ 15ab^2c$	$MCD: 5a$ $mcm: 420a^3b^4c^2$
97	$10h^4l^3p^3;\ 15h^3l^2p^4;\ 25h^2l^4p^6$	$MCD: 5h^2l^2p^3$ $mcm: 150h^4l^4p^6$
98	$4a^4b^2c;\ 12a^2b^2c^2;\ 8a^3b^3d$	$MCD: 4a^2b^2$ $mcm: 24a^4b^3c^2d$
99	$6a^2b^2c^3;\ 3ab^4c^3;\ 9a^5b^2c^3$	$MCD: 3ab^2c^3$ $mcm: 18a^5b^4c^3$
100	$z^8t^4;\ z^4t^8$	$MCD: z^4t^4$ $mcm: z^8t^8$
101	$36x^2yz\ ;\ 48xy^2;\ 24xyz^2;\ 72x^3yz^3$	$MCD: 12xy$ $mcm: 144x^3y^2z^3$
102	$7x^3y^2z^4\ ;\ 49x^5y^2z^3;\ 2x^6y^3z^3$	$MCD: x^3y^2z^3$ $mcm: 98x^6y^3z^4$
103	$88a^6b^9c^{12}t^8;\ 121a^9b^6c^5t^7;\ 44a^7b^8c^6t^9$	$MCD: 11a^6b^6c^5t^7$ $mcm: 968a^9b^9c^{12}t^9$
104	$2a^2bc;\ 3n^4m^2g^3$	$MCD: 1$ $mcm: 6a^2bcn^4m^2g^3$

105	$21e^2i^4\pi^3\ ;\quad 49e^3i^2\pi^4;\quad 63e^4i^3\pi^2$	$MCD: 7e^2i^2\pi^2$ $mcm: 441e^4i^4\pi^4$
106	$3a;\ 2ab;\ -5bc$	$MCD: 1$ $mcm: 30abc$
107	$10x^2y;\ -25x^4z^2;\quad 1$	$MCD: 1$ $mcm: 50x^4yz^2$
108	$2ab^2c;\ -5a^4c^2;\quad \frac{1}{5}a$	$MCD: a$ $mcm: a^4b^2c^2$
109	$10x^2y;\quad 1;\quad -25x^4z^2$	$MCD: 1$ $mcm: 50x^4yz^2$
110	$-5a^4c^2;\quad 2ab^2c;\quad \frac{5}{2}a$	$MCD: a$ $mcm: a^4b^2c^2$
111	$t^3;\quad t^5;\quad t^2u^2;\quad \frac{1}{3}t$	$MCD: t$ $mcm: t^5u^2$
112	$-3a;\quad -10b;\quad 2c$	$MCD: 1$ $mcm: 30abc$
113	$\frac{3}{2}ab;\ -\frac{2}{3}xy;\quad \frac{7}{5}ef$	$MCD: 1$ $mcm: abefxy$
114	$25x^4;\quad -15x^6;\quad 10x^8$	$MCD: 5x^4$ $mcm: 150x^8$
115	$8ab;\quad 4a^2b^2;\qquad 2a^3b^3$	$MCD: 2ab$ $mcm: 8a^3b^3$
116	$6a^2;\quad 3b;\quad 7ab^2$	$MCD: 1$ $mcm: 42a^2b^2$
117	$2x^nyz^{m+1};\ 16x^{n-1}y^nz^{m+2};\ 4x^ny^{n+1}z^m\ \ con\ m>0,\ n>1$	$MCD: 2x^{n-1}yz^m$ $mcm: 16\,x^ny^{n+1}z^{m+2}$
118	$a^mb^{2n}c^m;\ a^{m-1}b^nc^{m+1};\ abc\qquad con\ m>1,\ n>0$	$MCD: abc$ $mcm: a^mb^{2n}c^{m+1}$