Razionalizzazione

	razionalizza i denominatori delle seguenti frazioni					
1	$\dfrac{2}{\sqrt{2}}$	$\dfrac{1}{\sqrt{5}}$	$\dfrac{2}{\sqrt{12}}$	$\sqrt{2}$	$\dfrac{\sqrt{5}}{5}$	$\dfrac{\sqrt{3}}{3}$
2	$\dfrac{2\sqrt{7}}{\sqrt{20}}$	$\dfrac{2\sqrt{3}}{\sqrt{18}}$	$\dfrac{8\sqrt{5}}{3\sqrt{28}}$	$\dfrac{\sqrt{35}}{5}$	$\dfrac{\sqrt{6}}{3}$	$\dfrac{4\sqrt{35}}{21}$
3	$\dfrac{2\sqrt{15}}{3\sqrt{75}}$	$\dfrac{\sqrt[3]{3}}{\sqrt{5}}$	$\dfrac{\sqrt{5}-\sqrt{3}}{3\sqrt{2}}$	$\dfrac{2\sqrt{5}}{15}$	$\dfrac{\sqrt[6]{1125}}{5}$	$\dfrac{\sqrt{10}-\sqrt{6}}{6}$
4	$\dfrac{2\sqrt{2}-3\sqrt{5}}{2\sqrt{3}}$			$\dfrac{2\sqrt{6}-3\sqrt{15}}{6}$		
5	$\dfrac{2\sqrt{40}-3\sqrt{8}-\sqrt{5}}{6\sqrt{12}}$			$\dfrac{\sqrt{3}\left(4\sqrt{10}-6\sqrt{2}-\sqrt{5}\right)}{36}$		
6	$\dfrac{\sqrt{50}+\sqrt{12}-3\sqrt{2}}{4\sqrt{8}}$			$\dfrac{\sqrt{2}\left(\sqrt{3}+\sqrt{2}\right)}{8}$		
7	$\dfrac{a}{2\sqrt{a}}$		$\dfrac{a^2-b^2}{\sqrt{a+b}}$	$\dfrac{\sqrt{a}}{2}$	$(a-b)\sqrt{a+b}$	
8	$\dfrac{4a\sqrt[3]{ab}}{\sqrt{b}}$		$\dfrac{a+5}{\sqrt{a+5}}$	$\dfrac{4\sqrt[6]{a^8b^5}}{b}$	$\sqrt{a+5}$	
9	$\dfrac{\sqrt{x}-\sqrt{y}}{\sqrt{y}}$		$\dfrac{x-y}{\sqrt{x^2-y^2}}$	$\dfrac{\sqrt{xy}}{y}-1$	$\dfrac{\sqrt{x^2-y^2}}{x+y}$	
10	$\dfrac{x^2+2x+1}{\sqrt{x+1}}$			$(x+1)\sqrt{x+1}$		
11	$\dfrac{x^3-8}{\sqrt{x-2}}$			$(x^2+2x+4)\sqrt{x-2}$		
12	$\dfrac{3}{\sqrt{a^3}}$	$\dfrac{2}{\sqrt[3]{4}}$	$\dfrac{2}{3\sqrt[5]{8}}$	$\dfrac{3\sqrt{a}}{a^2}$	$\sqrt[3]{2}$	$\dfrac{\sqrt[5]{4}}{3}$
13	$\dfrac{\sqrt{x^3}\cdot\sqrt[14]{x^5}}{x\sqrt[7]{x^6}}$	$\dfrac{4\sqrt{3}}{\sqrt[7]{9}}$	$\dfrac{3\sqrt{2}}{4\sqrt[3]{2}}$	1	$4\sqrt[14]{27}$	$\dfrac{3\sqrt[6]{2}}{4}$
14	$\dfrac{12}{7\sqrt[6]{18}}$	$\dfrac{x}{\sqrt[4]{xy}}$	$\dfrac{6}{5\sqrt[3]{a^2b}}$	$\dfrac{2\sqrt[6]{2592}}{7}$	$\dfrac{\sqrt[4]{x^3y^3}}{y}$	$\dfrac{6\sqrt[3]{a^2b^4}}{5a^2b}$
15	$\dfrac{8abc}{3\sqrt[4]{a^3b^2c}}$	$\dfrac{xy^3z}{\sqrt[5]{x^2y^7z}}$		$\dfrac{8\sqrt[4]{ab^2c^3}}{3}$	$y\sqrt[5]{x^3y^3z^4}$	

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16	$\dfrac{3ax}{2b\sqrt[5]{a^3x}}$	$\dfrac{a^2bxy^3}{\sqrt[6]{a^5xy^5}}$	$\dfrac{3\sqrt[5]{a^2x^4}}{2b}$	$aby^2\sqrt[6]{ax^5y}$
17	$\dfrac{b}{y\sqrt[5]{b^3}}$	$\dfrac{4xy-4y^2}{2\sqrt[3]{x^2-2xy+y^2}}$	$\dfrac{\sqrt[5]{b^2}}{y}$	$2y\sqrt[3]{x-y}$
18	$\dfrac{a^2b}{x\sqrt[3]{axb}}$	$\dfrac{4x^2y(x-y)}{\sqrt[3]{16x^4y^2(x-y)^2}}$	$\dfrac{\sqrt[3]{a^5x^2b^2}}{x^2}$	$\sqrt[3]{4x^2y(x-y)}$
19	$\dfrac{x^3-y^3}{(x^2+xy+y^2)\sqrt[4]{x-y}}$	$\dfrac{a+b}{\sqrt[5]{a^2+2ab+b^2}}$	$\sqrt[4]{(x-y)^3}$	$\sqrt[5]{(a+b)^3}$
20	$\dfrac{(x+y)^2}{\sqrt[4]{x+y}}$		$(x+y)\sqrt[4]{(x+y)^3}$	
21	$\dfrac{a^2-1}{\sqrt[3]{(a^2-2a+1)^2}}$		$\dfrac{(a+1)\sqrt[3]{a-1}}{a-1}$	
22	$\dfrac{a^2-b^2}{\sqrt[3]{a+b}}$		$(a-b)\sqrt[3]{(a+b)^2}$	
23	$\dfrac{\sqrt{xy}+\sqrt[3]{xy^2}}{\sqrt[3]{x}\cdot\sqrt{y}}$		$\sqrt[6]{x}+\sqrt[6]{y}$	
24	$\dfrac{2}{\sqrt{3}+\sqrt{2}}$		$2(\sqrt{3}-\sqrt{2})$	
25	$\dfrac{5}{4-\sqrt{5}}$		$\dfrac{5(4+\sqrt{5})}{11}$	
26	$\dfrac{6}{2+\sqrt{2}}$		$3(2-\sqrt{2})$	
27	$\dfrac{6}{\sqrt{6}-\sqrt{2}}$		$\dfrac{3\sqrt{2}(\sqrt{3}+1)}{2}$	
28	$\dfrac{3\sqrt{3}}{\sqrt{3}-3}$		$-\dfrac{3(\sqrt{3}+1)}{2}$	
29	$\dfrac{\sqrt{7}+2}{\sqrt{7}-2}$		$\dfrac{11+4\sqrt{7}}{3}$	
30	$\dfrac{a-b}{b-\sqrt{ab}}$		$\dfrac{-b+\sqrt{ab}}{b}$	
31	$\dfrac{\sqrt{a}-a\sqrt{a}}{1-\sqrt{a}}$		$\sqrt{a}+a$	

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32	$\dfrac{12}{\sqrt{3} - \sqrt{2}}$	$12(\sqrt{3} + \sqrt{2})$
33	$\dfrac{\sqrt{7} + 2\sqrt{3}}{19 + 4\sqrt{21}}$	$\dfrac{2\sqrt{3} - \sqrt{7}}{5}$
34	$\dfrac{\sqrt{a} - \sqrt{2}}{\sqrt{a} + \sqrt{2}}$	$\dfrac{a + 2 - 2\sqrt{2a}}{a - 2}$
35	$\dfrac{a - b}{\sqrt{a} - \sqrt{b}}$	$\sqrt{a} + \sqrt{b}$
36	$\dfrac{\sqrt{x} - \sqrt{y}}{\sqrt{x} + \sqrt{y}}$	$\dfrac{x + y - 2\sqrt{xy}}{x - y}$
37	$\dfrac{8}{\sqrt{2a} + 2b}$	$\dfrac{4(\sqrt{2a} - 2b)}{a - 2b^2}$
38	$\dfrac{\sqrt{x}}{\sqrt{x} - 2\sqrt{y}}$	$\dfrac{x + 2\sqrt{xy}}{x - 4y}$
39	$\dfrac{a - 2}{2\sqrt{a} - a\sqrt{2}}$	$-\dfrac{2\sqrt{a} + a\sqrt{2}}{2a}$
40	$\dfrac{a + 2\sqrt{ab} + b}{\sqrt{a} + \sqrt{b}}$	$\sqrt{a} + \sqrt{b}$
41	$\dfrac{a - 5\sqrt{a} + b}{\sqrt{a} - 2}$	$\sqrt{a} - 3$
42	$\dfrac{3ab}{\sqrt{3a} - \sqrt{ab}}$	$\dfrac{3b(\sqrt{3a} + \sqrt{ab})}{3 - b}$
43	$\dfrac{x^2 - 2xy + y^2}{\sqrt{x} - \sqrt{y}}$	$(x - y)(\sqrt{x} + \sqrt{y})$
44	$\dfrac{ab}{(\sqrt{a - b} + \sqrt{a + b})}$	$\dfrac{-a(\sqrt{a - b} - \sqrt{a + b})}{2}$
45	$\dfrac{\sqrt{a + b} + \sqrt{a - b}}{\sqrt{a + b} - \sqrt{a - b}}$	$\dfrac{a + \sqrt{a^2 - b^2}}{b}$
46	$\dfrac{a + 3 + 2\sqrt{a + 2}}{\sqrt{a + 2} + 1}$	$1 + \sqrt{a + 2}$

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47	$\dfrac{a+1}{\sqrt{a+4}-\sqrt{3}}$	$\sqrt{a+4}+\sqrt{3}$
48	$\dfrac{3b+3}{\sqrt{2b+3}-\sqrt{b+2}}$	$3\left(\sqrt{2b+3}+\sqrt{b+2}\right)$
49	$\dfrac{\sqrt{ab}}{\sqrt{a^2b^3}+\sqrt{a^5b}}$	$\dfrac{b\sqrt{a}-a^2}{b^2-a^3}$
50	$\dfrac{3\sqrt{3}}{2-\sqrt{2}+\sqrt{3}}$	$\dfrac{36\sqrt{2}-15\sqrt{6}+27+6\sqrt{3}}{23}$
51	$\dfrac{23\sqrt{6}}{\sqrt{3}-\sqrt{2}-2}$	$9\sqrt{2}-10\sqrt{3}-2\sqrt{6}-24$
52	$\dfrac{3\sqrt{3}}{2-\sqrt{2}+\sqrt{3}}$	$\dfrac{36\sqrt{2}-15\sqrt{6}+27+6\sqrt{3}}{23}$
53	$\dfrac{1-\sqrt{2}}{\sqrt{2}-\sqrt{3}-\sqrt{5}}$	$\dfrac{2\sqrt{15}-6-\sqrt{30}+3\sqrt{2}-2\sqrt{3}+2\sqrt{6}}{12}$
54	$\dfrac{1}{\sqrt{3}+\sqrt{5}-\sqrt{2}}$	$\dfrac{\sqrt{30}-3\sqrt{2}+2\sqrt{3}}{12}$
55	$\dfrac{4}{\sqrt{2}-\sqrt{3}-\sqrt{6}}$	$\dfrac{4\left(7\sqrt{2}-5\sqrt{3}+\sqrt{6}-12\right)}{23}$
56	$\dfrac{3}{\sqrt{7}-\sqrt{2}+\sqrt{3}}$	$\dfrac{3\left(\sqrt{42}-4\sqrt{2}+3\sqrt{3}-\sqrt{7}\right)}{10}$
57	$\dfrac{2\sqrt{2}-\sqrt{3}}{\sqrt{2}-\sqrt{3}+\sqrt{6}}$	$-\dfrac{17\sqrt{6}-27\sqrt{2}+16\sqrt{3}-43}{23}$
58	$\dfrac{15\sqrt{2}}{\sqrt{6}+\sqrt{2}-2\sqrt{3}}$	$\dfrac{15\left(4+2\sqrt{3}+\sqrt{6}+3\sqrt{2}\right)}{4}$
59	$\dfrac{2}{\sqrt{3}+\sqrt{5}-\sqrt{2}}$	$\dfrac{2\sqrt{3}-3\sqrt{2}+\sqrt{30}}{6}$
60	$\dfrac{\sqrt{2}-\sqrt{3}+1}{\sqrt{3}+1+\sqrt{6}}$	$\sqrt{2}-\sqrt{3}+\sqrt{6}-2$
61	$\dfrac{2\sqrt{2}+3}{\sqrt{6}+\sqrt{3}+\sqrt{2}+2}$	$\sqrt{6}+\sqrt{3}-\sqrt{2}-2$

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62	$\dfrac{1}{\sqrt{6}-\sqrt{2}+\sqrt{3}-1}$	$\dfrac{\sqrt{6}-\sqrt{3}+\sqrt{2}-1}{2}$
63	$\dfrac{\sqrt{3}}{2-\sqrt{6}-\sqrt{2}+\sqrt{3}}$	$-3\sqrt{2}-2\sqrt{3}-\sqrt{6}-3$
64	$\dfrac{1}{\sqrt[3]{3}-2}$	$-\dfrac{\sqrt[3]{9}+2\sqrt[3]{3}+4}{5}$
65	$\dfrac{\sqrt[3]{2}}{\sqrt[3]{2}-1}$	$\left(1+\sqrt[3]{4}+\sqrt[3]{2}\right)\sqrt[3]{2}$
66	$\dfrac{3}{\sqrt[3]{5}-\sqrt[3]{2}}$	$\sqrt[3]{25}+\sqrt[3]{10}+\sqrt[3]{4}$
67	$\dfrac{a+b^3}{\sqrt[3]{a}+b}$	$\sqrt[3]{a^2}-b\sqrt[3]{a}+b^2$
68	$\dfrac{3\sqrt[3]{2}}{\sqrt[3]{2}-1}$	$3\left(2+\sqrt[3]{4}+\sqrt[3]{2}\right)$
69	$\dfrac{6}{\sqrt[3]{3}-\sqrt[3]{2}}$	$6\left(\sqrt[3]{9}+\sqrt[3]{6}+\sqrt[3]{4}\right)$
70	$\dfrac{13}{2-\sqrt[4]{3}}$	$\left(2+\sqrt[4]{3}\right)\left(4+\sqrt{3}\right)$
71	$\dfrac{10}{2\sqrt[3]{2}-\sqrt[3]{6}}$	$4\sqrt[3]{4}+2\sqrt[3]{12}+\sqrt[3]{36}$
72	$\dfrac{19}{2\sqrt[3]{3}-\sqrt[3]{5}}$	$4\sqrt[3]{9}+2\sqrt[3]{15}+\sqrt[3]{25}$
73	$\dfrac{13}{2\sqrt[3]{3}+\sqrt[3]{2}}$	$\dfrac{4\sqrt[3]{9}-2\sqrt[3]{6}+\sqrt[3]{4}}{2}$
74	$\dfrac{y}{\sqrt[3]{x+y}-\sqrt[3]{x}}$	$\sqrt[3]{(x+y)^2}+\sqrt[3]{x^2+xy}+\sqrt[3]{x^2}$
75	$\dfrac{2x}{\sqrt[3]{x+y}+\sqrt[3]{x-y}}$	$\sqrt[3]{(x+y)^2}-\sqrt[3]{x^2-y^2}+\sqrt[3]{(x-y)^2}$
76	$\dfrac{5x}{\sqrt[3]{5x+2}-\sqrt[3]{2}}$	$\sqrt[3]{(5x+2)^2}+\sqrt[3]{10x+4}+\sqrt[3]{4}$