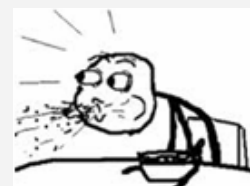


1) **POVERO PIERINO, NON NE AZZECCA UNA ...****VUOI CORREGGERE GLI ERRORI TREMENDI CHE IL COMPAGNO HA COMMESSO?**

- a) $\sqrt{3} + \sqrt{3} = \sqrt{6}$ b) $\sqrt[3]{x} \cdot \sqrt[4]{y} = \sqrt[12]{xy}$ c) $\sqrt[5]{x^2} \cdot \sqrt[5]{x^3} = \sqrt[5]{x^6}$
 d) $\sqrt[6]{x} - \sqrt[3]{x} = \sqrt[3]{x}$ e) $3\sqrt{x} + 5\sqrt{x} = 8\sqrt{2x}$ f) $3\sqrt{x} \cdot 5\sqrt{x} = 15\sqrt[4]{x}$
 g) $(\sqrt[3]{a})^2 = \sqrt[6]{a}$ h) $\sqrt{x^4 + 9} = x^2 + 3$ i) $\sqrt{3} + \sqrt{5} = \sqrt[4]{8}$
 l) $\sqrt{\sqrt{x} + \sqrt{y}} = \sqrt[4]{x} + \sqrt[4]{y}$ m) $\sqrt{3} + \sqrt{6} + \sqrt{7} = \sqrt{16} = 4$

**QUALCHE QUESITO PESCATO SU INTERNET**Dal sito www.glencoe.com: **Radical Expressions-Multiple Choice**

- 2) Simplify $\sqrt{180}$ a) $10\sqrt{3}$ b) $18\sqrt{5}$ c) $6\sqrt{5}$ d) $50\sqrt{3}$
 3) Simplify $\frac{\sqrt{48x^3y^2}}{\sqrt{4xy^3}}$ a) $\frac{2x\sqrt{3}}{\sqrt{y}}$ b) $\frac{3x\sqrt{2y}}{y}$ c) $\frac{2x\sqrt{3y}}{y}$ d) $\frac{2y\sqrt{3x}}{x}$
 4) Find the result of $\sqrt{6} \cdot \sqrt{48}$ a) $12\sqrt{3}$ b) $24\sqrt{3}$ c) $24\sqrt{2}$ d) $12\sqrt{2}$
 5) Simplify $\frac{3}{4+\sqrt{2}}$ a) $\frac{12+3\sqrt{2}}{14}$ b) $\frac{12+\sqrt{2}}{14}$ c) $\frac{12-3\sqrt{2}}{14}$ d) $\frac{12-\sqrt{2}}{14}$

Check It

Da <http://teachers.henrico.k12.va.us/math/HCPSSAlgebra2/modules.html>: **Simplify the expression**

- 6) $\sqrt{13} \cdot \sqrt{17}$ a) $\sqrt{221}$ b) 221 c) $\sqrt{30}$ d) $2\sqrt{221}$
 7) $\sqrt{\frac{3}{7}}$ a) $\frac{21}{\sqrt{7}}$ b) $\frac{8}{13}$ c) $\frac{\sqrt{21}}{7}$ d) $\sqrt{\frac{7}{3}}$
 8) $\sqrt{14} - \sqrt{\frac{2}{7}}$ a) $\frac{6\sqrt{14}}{7}$ b) $\frac{2\sqrt{7}}{7}$ c) $\frac{8\sqrt{14}}{7}$ d) $7\sqrt{2}$
 9) $3\sqrt{32} - 2\sqrt{18} + \sqrt{54}$ a) $4\sqrt{2} - 3\sqrt{6}$ b) $2\sqrt{6} + 6\sqrt{3}$ c) $2\sqrt{6} - 6\sqrt{3}$ d) $6\sqrt{2} + 3\sqrt{6}$
 10) $(\sqrt{19} - \sqrt{2})^2$ a) $21 - 2\sqrt{38}$ b) 17 c) $21 + 2\sqrt{38}$ d) $17 - 2\sqrt{38}$



Check Your Work

Correggi gli errori:



- 11) $\sqrt{2a+1} + \sqrt{2a-1} = \sqrt{2a+1+2a-1} = \sqrt{4a} = 2\sqrt{a}$
 12) $\sqrt{4+\sqrt{5} \cdot (\sqrt{5} + \sqrt{13})} = \sqrt{4+5+\sqrt{65}} = \sqrt{9+\sqrt{65}} = 3 + \sqrt[4]{65}$
 13) $\frac{(\sqrt{2}+5)^2}{\sqrt{2} \cdot \sqrt{5} \cdot \sqrt{10}} = \frac{2+25+10\sqrt{2}}{10} = \frac{27+10\sqrt{2}}{10} = 27 + \sqrt{2}$

**RISPOSTE:**

- 1a) $\sqrt{3} + \sqrt{3} = 2\sqrt{3}$ 1b) $\sqrt[3]{x} \cdot \sqrt[4]{y} = \sqrt[12]{x^4y^3}$ 1c) $\sqrt[5]{x^2} \cdot \sqrt[5]{x^3} = \sqrt[5]{x^5} = x$ 1d) $\sqrt[6]{x} - \sqrt[3]{x} = \text{STOP}$
 1e) $3\sqrt{x} + 5\sqrt{x} = 8\sqrt{x}$ 1f) $3\sqrt{x} \cdot 5\sqrt{x} = 15x$ 1g) $(\sqrt[3]{a})^2 = \sqrt[3]{a^2}$ 1h) $\sqrt{x^4 + 9} = \text{STOP}$
 1i) $\sqrt{3} + \sqrt{5} = \text{STOP}$ 1l) $\sqrt{\sqrt{x} + \sqrt{y}} = \text{STOP}$ 1m) $\sqrt{3} + \sqrt{6} + \sqrt{7} = \text{STOP}$ 2c3a4d5c6a7c8a9d10a

11) La somma di due radici quadrate NON è uguale alla radice quadrata della somma ...

12) La radice di una somma NON è uguale alla somma delle radici. Invece:

$$\sqrt{9+\sqrt{65}} = \sqrt{\frac{18+2\sqrt{65}}{2}} = \sqrt{\frac{18+2\sqrt{5} \cdot \sqrt{13}}{2}} = \sqrt{\frac{(\sqrt{5} + \sqrt{13})^2}{2}} = \frac{\sqrt{5} + \sqrt{13}}{\sqrt{2}} = \frac{\sqrt{10} + \sqrt{26}}{2}$$

13) Sbagliata la semplificazione finale