

$$(2) \textcircled{1} a) \frac{6+\sqrt{2}}{\sqrt[3]{4+\sqrt{3}}} = \frac{(6+\sqrt{2}) (\sqrt[3]{(4+\sqrt{3})^2})}{4+\sqrt{3}} = \frac{(6+\sqrt{2}) (\sqrt[3]{(4+\sqrt{3})^2}) (4-\sqrt{3})}{13}$$

$$b) \frac{3[(\sqrt{5}-\sqrt{3}-\sqrt{8})]}{(\sqrt{5}-\sqrt{3})^2 - \sqrt{8}^2} = \frac{3[\sqrt{5}-\sqrt{3}-\sqrt{8}]}{5+3-2\sqrt{15}-8} = \frac{3[\sqrt{5}-\sqrt{3}-\sqrt{8}]\sqrt{15}}{-2\sqrt{15}\sqrt{15}} = \frac{3[\sqrt{5}-\sqrt{3}-\sqrt{8}]\sqrt{15}}{-30} =$$

$$\frac{[\sqrt{5}-\sqrt{3}-\sqrt{8}]\sqrt{15}}{-10}$$

$$(1) \textcircled{2} \frac{5,13 \cdot 10^{-3} (1,067 \cdot 10^2 - 2,7 \cdot 10^{-2})^3}{7,052 \cdot 10^3 + 7,13 \cdot 10^{-1}} = \frac{5,13 \cdot 10^{-3} (10670 \cdot 10^{-2} - 2,7 \cdot 10^{-2})^3}{70520 \cdot 10^{-1} + 7,13 \cdot 10^{-1}}$$

$$= \frac{5,13 \cdot 10^{-3} (10667,3 \cdot 10^{-2})^3}{70527,13 \cdot 10^{-1}} = \frac{5,13 \cdot 10^{-3} \cdot 1,2138 \cdot 10^{12} \cdot 10^{-6}}{70527,13 \cdot 10^{-1}}$$

$$= \frac{6,22702 \cdot 10^3}{70527,13 \cdot 10^{-1}} = 8,829254 \cdot 10^{-5} \cdot 10^4 = 8,829 \cdot 10^{-1}$$

$$(1) \textcircled{3} 5,097660$$

$$E_A = 1,2 \cdot 10^{-7}$$

$$E_R = 2,354 \cdot 10^{-8}$$

$$(1.5) \textcircled{4} a) 3\sqrt[3]{16} - \frac{1}{2}\sqrt[3]{250} + \frac{3}{4}\sqrt[3]{\frac{54}{8}} = 3\sqrt[3]{2^4} - \frac{1}{2}\sqrt[3]{5^3 \cdot 2} + \frac{3}{4}\sqrt[3]{\frac{3^3 \cdot 2}{2^3}} =$$

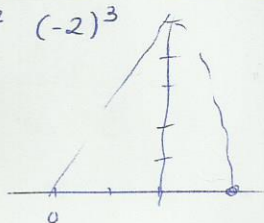
$$= 6\sqrt[3]{2} - \frac{5}{2}\sqrt[3]{2} + \frac{9}{8}\sqrt[3]{2} = \frac{37}{8}\sqrt[3]{2}$$

$$b) \sqrt[4]{\frac{\sqrt{2^2 \cdot 3} \sqrt[3]{2^3 \cdot 3} (\sqrt[3]{7^2 \cdot 2})^2}{\sqrt[5]{26 \cdot 3}}} = \frac{\sqrt[8]{2^2 \cdot 3} \sqrt[24]{2^5 \cdot 3} \sqrt[24]{7^4 \cdot 2^2}}{\sqrt[20]{26 \cdot 3}}$$

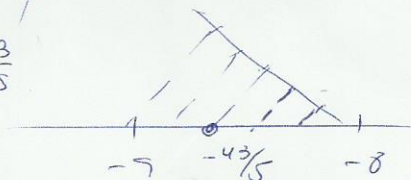
$$\sqrt[120]{\frac{2^{30} \cdot 3^{15} \cdot 2^{25} \cdot 3^5 \cdot 7^{20} \cdot 2^{10}}{2^{36} \cdot 3^6}} = \sqrt[120]{2^{29} \cdot 3^{14} \cdot 7^{20}}$$

$$c) \frac{(2^5 \cdot 3^5)(2^3 \cdot 7^3) 2^2 \cdot 3^4 \cdot 3^3}{2^6 \cdot 7^3 \cdot 3^{12} (-2)^3} = -\frac{2^{10} \cdot 3^{12} \cdot 7^3}{2^9 \cdot 3^{12} \cdot 7^3} = -2$$

$$(1) \textcircled{5} \sqrt{29} = \sqrt{5^2 + 2^2}$$



$$-\frac{43}{5} = -8\frac{3}{5}$$



$$(1) \textcircled{6} a) \log \sqrt[5]{\frac{1}{0,32}} = \frac{1}{5} [\log 1 - \log \frac{32}{100}] = -\frac{1}{5} [\log 2^5 - \log 100] =$$

$$= -\frac{5}{5} \log 2 + \frac{2}{5} = -0,3010 + \frac{2}{5} = 0,099$$

$$b) \log_7 \frac{405}{8} = \log_7 405 - \log_7 8 = \log_7 3^4 \cdot 5 - \log_7 2^3 = 4 \cdot \log_7 3 + \log_7 5 - 3 \log_7 2 =$$

$$= 1,7044$$