## POTENSER MED RATIONELLA EXPONENTER (s.126)

### 4215

a) $16^{1/4} = \sqrt[4]{16} = 2$ b) $27^{1/3} = \sqrt[3]{27} = 3$ c) $5 \cdot 64^{1/3} = 5 \cdot \sqrt[3]{64} = 5 \cdot 4 = 20$

### 4218

a) $\frac{\sqrt{36}+6\cdot 3}{\sqrt{36}} = \frac{6+18}{6} = \frac{24}{6} = 4$

b) $\frac{\sqrt[3]{8}+16}{\left(\sqrt[4]{4}\right)^2} = \left\{\sqrt[4]{4}^2 = \left(4^{\frac{1}{4}}\right)^2 = 4^{2\cdot\frac{1}{4}} = 4^{\frac{2}{4}} = 4^{\frac{1}{2}} = \sqrt{4} = 2\right\} = \frac{2+16}{2} = \frac{18}{2} = 9$

### 4219

a) $\frac{x^{3/2}}{x^{1/2}} = x^{\frac{3}{2}-\frac{1}{2}} = x^{\frac{2}{2}} = x^1 = x$

b) $\frac{x^{5/2}}{x^2} = x^{\frac{5}{2}-2} = x^{\frac{5}{2}-\frac{4}{2}} = x^{\frac{1}{2}} = \sqrt{x}$

### 4222

a) $\sqrt[3]{-8} = -2$, därför att *(-2)·(-2)·(-2) = (-8)*

c) $\sqrt[4]{-16}$ = 'Ej definierat', därför att *2·2·2·2=16* & *(-2)·(-2)·(-2)·(-2)=16*