$$= \frac{2}{(1+1)(1+1+1)} = \frac{1}{3}$$

1402. $$\lim_{x\to+\infty}\left(\left(x^3-x^2+\frac{x}{2}\right)e^{\frac{1}{x}}-\sqrt{x^6+1}\right)=$$

$$=\lim_{x\to+\infty}\left(\left(x^3-x^2+\frac{x}{2}\right)\left(1+\frac{1}{x}+\frac{1}{2x^2}+\frac{1}{6x^3}\right)-\sqrt{x^6+1}\right)=$$

$$=\lim_{x\to+\infty}\left(x^3+x^2+\frac{1}{2}x+\frac{1}{6}-x^2-x-\frac{1}{2}-\frac{1}{6x}+\frac{x}{2}+\frac{1}{2}+\frac{1}{4x}+\frac{1}{12x^2}-\sqrt{x^6+1}\right)=$$

$$=\lim_{x\to+\infty}\left(x^3+\frac{1}{6}-\frac{1}{6x}+\frac{1}{4x}+\frac{1}{12x^2}-\sqrt{x^6+1}\right)=$$

$$=\lim_{x\to+\infty}\left(-\frac{1}{6x}+\frac{1}{4x}+\frac{1}{12x^2}+\frac{\left(x^3+\frac{1}{6}\right)^2-x^6-1}{x^3+\frac{1}{6}+\sqrt{x^6+1}}\right)=$$

$$=\lim_{x\to+\infty}\left(-\frac{1}{6x}+\frac{1}{4x}+\frac{1}{12x^2}+\frac{\frac{1}{3}x^3+\frac{1}{36}-1}{x^3+\frac{1}{6}+\sqrt{x^6+1}}\right)=$$

$$=\lim_{x\to+\infty}\left(-\frac{1}{6x}+\frac{1}{4x}+\frac{1}{12x^2}+\frac{\frac{1}{3}-\frac{5}{36x^3}}{1+\frac{1}{6x^3}+\sqrt{1+\frac{1}{x^6}}}\right)=\frac{\frac{1}{3}}{2}=\frac{1}{6}.$$