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$$\lim_{x\to+\infty}\left[\frac{x^2+x+3}{x-1}-\frac{5x^2+3x+1}{5x+4}\,e^{\operatorname{arcsen}\frac{1}{x}}\right]=$$

$$=\lim_{x\to+\infty}\frac{x^2+x+3}{x-1}-\frac{5x^2+3x+1}{5x+4}+$$

$$+\lim_{x\to+\infty}\frac{5x^2+3x+1}{5x+4}\left(e^{\operatorname{arcsen}\frac{1}{x}}-1\right)=$$

$$=\lim_{x\to+\infty}\frac{(x^2+x+3)(5x+4)-(5x^2+3x+1)(x-1)}{(5x+4)(x-1)}+$$

$$-\lim_{x\to+\infty}\frac{5x^2+3x+1}{5x+4}\cdot\frac{e^{\operatorname{arcsen}\frac{1}{x}}-1}{\operatorname{arcsen}\frac{1}{x}}\cdot\frac{\operatorname{arcsen}\frac{1}{x}}{\frac{1}{x}}\cdot\frac{1}{x}$$

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$$= \lim_{x\to+\infty} \frac{5x^3 + 5x^2 + 15x + 4x^2 + 4x + 12 - 5x^3 - 3x^2 - x + 5x^2 + 7x + 1}{5x^2 - x - 4} +$$

$$+ \lim_{x\to+\infty} \frac{5x^2+3x+1}{5x^2+4x} \cdot \frac{e^{\arcsin\frac{1}{x}} - 1}{\arcsin\frac{1}{x}} \cdot \frac{\arcsin\frac{1}{x}}{\frac{1}{x}} =$$

$$= \lim_{x\to+\infty} \frac{11x^2 + 21x + 13}{5x^2 - x - 4} + 1 \cdot 1 \cdot 1 =$$

$$= \frac{11}{5} + 1 = \frac{16}{5}$$