

Является ли функция четной или нечетной?

$$a) f(x) = \sin^2 x;$$

$$б) f(x) = \frac{\operatorname{tg} x}{x};$$

$$в) f(x) = \operatorname{tg}^3 x;$$

$$г) f(x) = \operatorname{tg} x + \operatorname{ctg} x;$$

$$д) f(x) = x + \sin x;$$

$$е) f(x) = \operatorname{tg} x + \cos x;$$

$$ж) f(x) = \frac{1 - \cos x}{1 + \cos x};$$

$$з) f(x) = \frac{x + \sin x}{\operatorname{tg}^3 x};$$

$$и) f(x) = \frac{\sin x + \operatorname{tg} x}{\sin x - \operatorname{tg} x};$$

$$к) f(x) = \sin x + \operatorname{tg} x;$$

$$л) f(x) = -\frac{1}{\sin^3 x};$$

$$м) f(x) = \frac{1 + \sin^2 x}{\operatorname{tg} 3x};$$

$$н) f(x) = \frac{1 - \cos x}{1 + \sin^2 x};$$

$$о) f(x) = x^3 + \cos x;$$

$$п) f(x) = \frac{x \sin x}{1 - \cos x};$$

$$р) f(x) = \frac{\cos x}{x^2 - 1};$$

$$с) f(x) = \frac{\operatorname{tg}^2 x}{x^3 - 1};$$

$$т) f(x) = x \sqrt{1 - \sin^4 x};$$

$$у) f(x) = \cos \left( x - \frac{\pi}{4} \right);$$

$$ф) f(x) = \sin \left( x + \frac{\pi}{3} \right);$$

$$х) f(x) = \operatorname{tg} (x + 2);$$

$$ц) f(x) = \sin x - \frac{\pi}{4};$$

$$ч) f(x) = \cos x + \frac{\pi}{3};$$

$$ш) f(x) = \operatorname{tg} x + 1;$$

$$щ) f(x) = \frac{(x - 1) \cos x}{x - 1};$$

$$э) f(x) = \frac{x^3 \sin x}{x};$$

$$ю) f(x) = \frac{\left( x - \frac{\pi}{4} \right) \operatorname{tg} x}{x - \frac{\pi}{4}};$$

$$я) f(x) = \frac{\operatorname{ctg} x \cdot (x^2 - 1)}{x^2 - 1}$$