

توجه: همکار گرامی لطفاً ورقه امتحانی را با خود کار قرمز تصحیح و با خود کار سبز تجدید نظر فرمائید

بارم	(پشت صفحه)	ردیف
1	$\log_r(x+1)(x+r) = \log_r^r \rightarrow (x+1)(x+r) = r \quad \therefore$ $x^2 + r + x = r \rightarrow x(x+r) = 0 \quad \boxed{x=0} \quad x = -r$	9
va	$\log(\tan 30^\circ \times \tan 31^\circ \times \dots \times \tan 40^\circ) = \log 1 = 0$	10
v8	$\frac{\pi}{r} = \frac{l}{r\alpha} \rightarrow l = \frac{r\alpha\pi}{r} \quad / \quad \alpha = \frac{r\alpha\pi}{r} = \frac{\pi}{1} = 2\pi$	11
1	$\frac{-\sin(\pi - \alpha) + \cos(\frac{\pi}{4} - \alpha)}{\sin(\frac{3\pi}{4} + \alpha)} = \frac{-\sin\alpha + \sin\alpha}{-\cos\alpha} = \tan\alpha = 2$	12
v8		13
v8	$\lim_{x \rightarrow 2} f(x) = \lim_{x \rightarrow 2} \frac{x-1}{x+3} = \frac{1}{5}$	14
1	$\lim_{x \rightarrow 3} \frac{r - \sqrt{x+1}}{x-3} \times \frac{r + \sqrt{x+1}}{r + \sqrt{x+1}} = \lim_{x \rightarrow 3} \frac{r^2 - x}{(x-3)(r + \sqrt{x+1})} = \frac{-1}{4}$	15
1	$\lim_{x \rightarrow 0} \frac{r(2 \sin^2 x)}{x \sin x} = \lim_{x \rightarrow 0} \frac{\sin x}{x} \times r = r$	16
	$\lim_{x \rightarrow 2^-} \frac{x-2}{-1} = 0, \quad \lim_{x \rightarrow 2^+} \frac{x-2}{0} = \infty \Rightarrow \lim_{x \rightarrow 2} \frac{x-2}{[x]-2}$	
	$\lim_{x \rightarrow 3^-} \frac{a x-3 }{x^2-9} = \lim_{x \rightarrow 3^-} \frac{-a(x-3)}{(x-3)(x+3)} = \frac{-a}{4} = 2 \rightarrow a = -8$	17
110	$\lim_{x \rightarrow 3^+} \sin\left(\frac{\pi}{rn}\right) + bx = \sin\frac{\pi}{4} + 3b = \frac{1}{2} + 3b = 2 \rightarrow b = \frac{1}{3}$	