

Review of Limits

Puzzle by David Pleacher

Directions: Solve each of the 17 problems on limits:

			<u>MATCHING</u>	
_____	1.	$\lim_{x \rightarrow \infty} \frac{6-7x}{x+3} =$	None of the answers below:	WHERE
_____	2.	$\lim_{x \rightarrow 5} 4 =$	4x	AND
_____	3.	$\lim_{x \rightarrow 1} \frac{x^2-1}{x-1} =$	$\frac{3}{a}$	BE
_____	4.	$\lim_{x \rightarrow 0} \frac{x^2+3x}{x} =$	-11	WATCH
_____	5.	$\lim_{x \rightarrow 3} \frac{x^3+27}{x+3} =$	-9	THREE
_____	6.	$\lim_{x \rightarrow a} \frac{3}{x} =$	-7	GROUPS
_____	7.	$\lim_{x \rightarrow \infty} \frac{1}{x} =$	-6	PEOPLE
_____	8.	$\lim_{x \rightarrow 0} \frac{4}{x^2} =$	-1	WATCHES
_____	9.	$\lim_{x \rightarrow \infty} (-6 - \frac{3}{x^2}) =$	0	HAPPENED
_____	10.	$\lim_{x \rightarrow 0} \frac{8x-8}{x-1} =$	2	MAKE
_____	11.	$\lim_{h \rightarrow 0} \frac{f(x+h)-f(x)}{h} =$ if $f(x) = 2x^2$	3	THINGS
_____	12.	$\lim_{x \rightarrow \infty} \frac{7x-7}{x-1} =$	4	THOSE
_____	13.	$\lim_{x \rightarrow -3} \frac{x^3+27}{x+3} =$	5	WHAT
_____	14.	$\lim_{x \rightarrow 1} \frac{5x-5}{x-1} =$	6	CAN
_____	15.	$\lim_{x \rightarrow 1} \frac{5x^2+x}{x} =$	7	DIVIDED
_____	16.	$\lim_{x \rightarrow -1} (-2x^2+5x-2) =$	8	HAPPEN
_____	17.	$\lim_{x \rightarrow -4} \frac{3x^2+13x+4}{x+4} =$	9	WONDER
			27	INTO
			35	WHY
			∞	WHO

NOW, Decode the secret message by placing the corresponding word for each problem number in the blank spaces below:

_____ :
9 15 6 12 13 16 1

_____ :
2 8 3 4 10

_____ :
2 8 17 4 10

_____ :
11 2 8 5 14 7