

Name \_\_\_\_\_ Date \_\_\_\_\_

**"What did one math book say to the other?"**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>
<b>K</b>	<b>L</b>	<b>M</b>	<b>N</b>	<b>O</b>

Directions: Evaluate each limit and find your answer in one of the answer columns. Notice the letters next to the answer. Write these letters in the box that has the same letter as the exercise. Put the letters together to form words and you will find the answer to the question!

A)  $\lim_{x \rightarrow 4^-} x - \sqrt{16 - x^2}$

D)  $\lim_{x \rightarrow 5} \frac{x^3 - 125}{x - 5}$

N)  $\lim_{x \rightarrow 9} \frac{x - 9}{\sqrt{x} - 3}$

G)  $\lim_{x \rightarrow 3} \frac{x^3 - x^2 - 5x - 3}{x - 3}$

J)  $\lim_{x \rightarrow 4} \frac{\frac{1}{x} - \frac{1}{4}}{x - 4}$

F)  $\lim_{x \rightarrow \infty} \frac{5x^2 - 3x + 1}{2 - 3x^2}$

M)  $\lim_{x \rightarrow 2} \frac{1}{(x - 2)^2}$

B)  $\lim_{x \rightarrow \frac{1}{2}^-} \frac{1}{2x - 1}$

L)  $\lim_{x \rightarrow \infty} \frac{6x}{\sqrt{9x^2 + 1}}$

E)  $\lim_{x \rightarrow 2^+} \frac{|x - 2|}{x - 2}$

H)  $\lim_{x \rightarrow 6} \sqrt{36 - x^2}$

O)  $\lim_{x \rightarrow \infty} \frac{5x}{2 - 3x^2}$

K)  $\lim_{h \rightarrow 0} \frac{8(x+h) - 8x}{h}$

C)  $\lim_{x \rightarrow -2} x^3 - 3x + 9$

I)  $\lim_{x \rightarrow 5} [x]$

**ANSWERS:**

<b>8 MY</b>	<b>4 DON</b>	$\frac{1}{16}$ <b>MONSTER</b>	<b>-1 THAT</b>	$-\frac{1}{16}$ <b>GOT</b>
<b>DNE I</b> (not defined from right)	<b>DNE YOU</b> (not defined from left)	<b>DNE 'VE</b> (rt & left limits not equal)	<b>8h AT</b>	<b>0 EMS</b>
<b>-8 BUT</b>	<b>16 ---</b>	<b>6 BL</b>	$\frac{5}{3}$ <b>A</b>	<b>5 THEY</b>
<b>2 WERS</b>	$-\frac{5}{3}$ <b>ME</b>	<b>-2 OWN</b>	<b>75 TH</b>	$-\infty$ <b>'T</b>
<b>1 ER</b>	$\frac{2}{3}$ <b>BUT</b>	$\infty$ <b>PRO</b>	$-\frac{2}{3}$ <b>ANS</b>	<b>7 BO</b>

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