

Name(s): \_\_\_\_\_ Seat(s) \_\_\_\_\_

Unit 1 ODD ONE OUT

Which of the following don't belong? 3 of the problems in each group below require the use of the same strategy. Determine which is the "odd one out" and work the problems in each group.

1.

A.  $\lim_{x \rightarrow 0} \frac{8x}{\sin 8x} =$

B.  $\lim_{x \rightarrow 0} \frac{\sin x}{x} =$

C.  $\lim_{x \rightarrow 0} \frac{\sin 2x}{3x} =$

D.  $\lim_{x \rightarrow \pi} \tan x =$

2.

A.  $\lim_{x \rightarrow 2} \frac{x^2 + 2x - 8}{x^2 - x - 2} =$

B.  $\lim_{x \rightarrow 5} \frac{5 - x}{x^2 - 25} =$

C.  $\lim_{x \rightarrow 4} f(x), f(x) = \begin{cases} \frac{1}{2}x - 1, & x \geq 4 \\ 2x - 1, & x < 4 \end{cases}$

D.  $\lim_{x \rightarrow 0} \frac{2x}{x^2 + 4x} =$

3.

A.  $\lim_{x \rightarrow 8} \frac{\sqrt{x+1} - 3}{x - 8} =$

B.  $\lim_{x \rightarrow 0} \frac{8 - \frac{2}{x^2}}{\frac{7}{x^3} - 4} =$

C.  $\lim_{x \rightarrow 4} \frac{\sqrt{x+5} - 3}{x - 4} =$

D.  $\lim_{x \rightarrow 0} \frac{\sqrt{2+x} - \sqrt{2}}{x} =$