Name : _____ Score : _____

Teacher : _____ Date : _____

Evaluation of Limits

Evaluate the given limits. Round to the nearest ten-thousandth.

1) $\lim_{x \to 0} \frac{4\sin(3x)}{2\sin(2x)}$

2) $\lim_{x \to 0} \frac{4 - 4\cos(2x)}{2x}$

3) $\lim_{x \to 0} \frac{4 - 4\sin(\pi/2 + x)}{4x}$

4) $\lim_{x \to 0} \frac{2\cos(\pi/2 + 3x)}{3x}$

5) $\lim_{x \to 0} \frac{x^2}{4\sin^2(3x)}$

6) $\lim_{x \to 0} \frac{3\sin(x)}{x}$

7) $\lim_{x \to 0} \frac{4 - 4\cos^2(2x)}{4x}$

8) $\lim_{x \to 0} \frac{\cos(3x + \pi/2)}{2\cos(2x + \pi/2)}$

9) $\lim_{x \to 0} \frac{4\sin(\pi/2 + x) - 4}{x}$

10) $\lim_{x \to 0} \frac{2x}{4\sin(2x)}$

Name : _____ Score : _____

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Evaluation of Limits

Evaluate the given limits. Round to the nearest ten-thousandth.

1) $\lim_{x \to 0} \frac{4\sin(3x)}{2\sin(2x)}$

3

2) $\lim_{x \to 0} \frac{4 - 4\cos(2x)}{2x}$

0

3) $\lim_{x \to 0} \frac{4 - 4\sin(\pi/2 + x)}{4x}$

0

4) $\lim_{x \to 0} \frac{2\cos(\pi/2 + 3x)}{3x}$

-2

5) $\lim_{x \to 0} \frac{x^2}{4\sin^2(3x)}$

$\frac{1}{36}$

6) $\lim_{x \to 0} \frac{3\sin(x)}{x}$

3

7) $\lim_{x \to 0} \frac{4 - 4\cos^2(2x)}{4x}$

0

8) $\lim_{x \to 0} \frac{\cos(3x + \pi/2)}{2\cos(2x + \pi/2)}$

$\frac{3}{4}$

9) $\lim_{x \to 0} \frac{4\sin(\pi/2 + x) - 4}{x}$

0

10) $\lim_{x \to 0} \frac{2x}{4\sin(2x)}$

$\frac{1}{4}$