KFUPM – Department of Mathematics and Statistics – Term 153

**MATH 101**

**QUIZ # 1: Code 1** (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

---

**Exercise 1** (5 points)

Find $\lim_{x\to 0}\left(\frac{\sqrt{4+x^2}-\sqrt{4-x^2}}{x^2}\right)$

---

**Exercise 2** (5 points)

Find $\lim_{x\to \pi}(x-\pi)\csc(x)$

KFUPM – Department of Mathematics and Statistics – Term 153

**MATH 101**

**QUIZ # 1: Code 2** (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

---

**Exercise 1** (5 points)

Find $\lim_{x\to 4}\left(\frac{\sqrt{9+x^2}-5}{x-4}\right)$

---

**Exercise 2** (5 points)

Find $\lim_{x\to 0}\frac{\tan^2(3x)}{x^2}$

KFUPM – Department of Mathematics and Statistics – Term 153

**MATH 101**

**QUIZ # 1: Code 3** (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

---

**Exercise 1** (5 points)

Find $\lim_{x\to 1}\left(\frac{x-1}{\sqrt{x^2+3}-2}\right)$

---

**Exercise 1** (5 points)

$\lim_{x\to 0} x^3 \cot^3(2x)$