KFUPM – Department of Mathematics and Statistics – Term 132

**MATH 102**

**QUIZ6 Code 1** (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

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**Exercise 1** (5 points)

The interval of convergence of the power series $\sum_{n=1}^{\infty} \frac{(x-2)^n}{3^n}$ is:

| | |
|---|---|
| $[-1,5]$ | |
| $(-1,5)$ | |
| $[-1,5)$ | |
| $(-1,5]$ | |
| $[1,5)$ | |

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**Exercise 2** (5points)

The sum of the series $\sum_{n=1}^{\infty} \frac{(-1)^n}{2^n n}$ is:

| | |
|---|---|
| $\ln(\frac{1}{2})$ | |
| $\ln(\frac{2}{3})$ | |
| $\ln(\frac{3}{2})$ | |
| $-\ln(\frac{1}{2})$ | |
| $\ln 3$ | |

KFUPM – Department of Mathematics and Statistics – Term 132

**MATH 102**

**QUIZ6 Code 2** (Duration = 15 minutes)

NAME:_____ ID:_____ Section: _____

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**Exercise 1** (5 points)

The interval of convergence of the power series $\sum_{n=1}^{\infty} \frac{(x-3)^n}{2^n}$ is:

| | |
|---|---|
| $[1,5]$ | |
| $(1,5)$ | |
| $[1,5)$ | |
| $(1,5]$ | |
| $[-1,5)$ | |

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**Exercise 2** (5points)

The sum of the series $\sum_{n=1}^{\infty} \frac{(-1)^n}{3^n n}$ is:

| | |
|---|---|
| $\ln(\frac{1}{3})$ | |
| $\ln(\frac{3}{4})$ | |
| $\ln(\frac{4}{3})$ | |
| $-\ln(\frac{1}{3})$ | |
| $\ln 4$ | |