King Fahd University for Petroleum and Minerals Department of Mathematics & Statistics

Term 142 Math 102 (24) Quiz#6 (10.7) Family Name: S.r#

Q1. Find the sum and the Interval of convergence for $\sum_{n=1}^{\infty} \frac{x^n}{n}$

Q2. Use (Q1) to find the sum of $\sum_{n=1}^{\infty} \frac{(-1)^n}{3^{n-1} n}$

King Fahd University for Petroleum and Minerals Department of Mathematics & Statistics

Term 142 Math 102 (7) Quiz#6 (10.7) Family Name: S.r#

Q1. Find the sum and the Interval of convergence for $\sum_{n=0}^{\infty} (n+1) x^n$

Q2. use (Q1.) to find the sum of $\sum_{n=0}^{\infty} \frac{(-1)^{n+1}(n+1)}{2^n}$

King Fahd University for Petroleum and Minerals Department of Mathematics & Statistics

Term 142

Math 102 (28)

Quiz#6 (10.7)

Family Name:

S.r#

Q1. Evaluate
$$f''(2)$$
, if $f = \sum_{n=0}^{\infty} \frac{(-1)^n (2n)!}{(n+1)!} (x-2)^{n+1}$.

Q2. Find the power series (centered at 0) for $\frac{2}{3x-2}$