King **F**ahd **U**niversity for **P**etroleum and **M**inerals
Department of Mathematics & Statistics
Term 142 Math 102 (24) Quiz#5 (10.1, 10.2, 10.3, and 10.4)
Family Name: S.r#

Q1. Determine whether $\sum \frac{(-1)^{n+1}}{2^{1-2n}\,7^n}$ converges or diverges. Find its sum if it is convergent.

Q2. Determine whether $\left\{\sqrt[n]{3^n - 2^n}\right\}$ converges or diverges

Q3. If $\sum a_n = 3, a_n > 0$. Does $\sum \frac{1}{a_n}$ converge or diverge (justify your answer)

King **F**ahd **U**niversity for **P**etroleum and **M**inerals
Department of Mathematics & Statistics
Term 142 Math 102 (7) Quiz#5 (10.1, 10.2, 10.3, and 10.4)
Family Name: S.r#

Q1. Determine whether $\sum \frac{1}{n^2+11n+30}$ converges or diverges. Find its sum if it is convergent.

Q2. Determine whether $\sum \frac{\sin^2 n}{(n+1)^2}$ converges or diverges.

Q3. If $\sum a_n = 3$. Does $\left\{\frac{1}{3}a_n\right\}$ converge or diverge (justify your answer)

King **F**ahd **U**niversity for **P**etroleum and **M**inerals
Department of Mathematics & Statistics
Term 142 Math 102 (28) Quiz#5 (10.1, 10.2, 10.3, and 10.4)
Family Name: S.r#

Q1. Determine whether $\sum \frac{\sqrt[n]{n}}{n^2+1}$ converges or diverges.

Q2. Determine whether $\sum \frac{1}{n(1+\ln^2 n)}$ converges or diverges