Question 10

Question 0.1 *Test the following series for convergence:*

$$\sum_{n=1}^{+\infty} \frac{z^n}{n!\sqrt{n}}$$

unsure

$$\sum_{n=1}^{+\infty} \frac{3sin(n) - 2}{n\sqrt{n}}$$

This converges by the direct comparisson test.

$$\sum_{n=2} +\infty \frac{(-1)^n}{logn}$$

This diverges by the direct comparisson test.

$$\sum_{n=1} +\infty \frac{4 + cos(n^2)}{n}$$

This diverges by the direct comparisson test.

$$\sum_{n=1} +\infty \frac{n!}{n^{n+2}}$$

This converges by the direct comparisson test.