Determine if the series converges or diverges. If it converges, determine if this convergence is absolute or conditional.

1. $\sum_{n=1}^{\infty}(-1)^{n+1}\left(\dfrac{\sqrt{n+1}-\sqrt{n}}{n}\right)$

2. $\sum_{n=1}^{\infty}\dfrac{(-1)^n}{n^2-6n+10}$

3. $\sum_{n=1}^{\infty}\dfrac{\cos(5n)}{n^5}$

4. $\sum_{n=1}^{\infty}\dfrac{(-5)^{2n}}{n^2 9^n}$

5. $\sum_{n=1}^{\infty}(-1)^{\llbracket\sqrt{n^2+2}\rrbracket}\left(\sin\left(\dfrac{1}{\sqrt{n}}\right)\right)^n$

6. $\sum_{n=0}^{\infty}(-1)^n(\sqrt{n^2+1}-n)$

7. $\sum_{n=1}^{\infty}\left(\dfrac{-1}{2}\right)^n\dfrac{(2n)!}{(n!)^2}$

8. $\sum_{n=1}^{\infty}\dfrac{(-1)^n\sqrt{n}}{(\ln(n+1))^2}$

9. $\sum_{n=1}^{\infty}\dfrac{(-1)^{n+1}}{\sqrt{n+1}}$

10. $\sum_{n=1}^{\infty}\dfrac{n^n}{(2n)!}$