



## Infinte Series SOLUTIONS



1.
  - i. 2
  - ii. Doesn't exist
  - iii.  $\frac{27}{2}$
  - iv.  $\frac{16}{3}$
  - v. Doesn't exist
2.  $\frac{2}{3}$
3.  $\frac{58}{99}$
4.  $\frac{43}{9}$
5.
  - i.  $S_{\infty} = \frac{x}{1 - \frac{1}{1-x}}$
  - ii.  $x = 4$
6.
  - i.  $S_{\infty} = \frac{x}{1 - \frac{1}{x+2}}$
  - ii.  $x = 3$
7.
  - i.  $-4 > x > 2$
  - ii.  $-\frac{1}{3} > x > 1$
  - iii.  $-3 < x < 3$
8.
  - i.  $\theta = 15^{\circ}, 45^{\circ}, 75^{\circ}$
  - ii.  $\theta = 0^{\circ}, 60^{\circ}$
9.  $p = 3$

