

$$1) S = 1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \dots\dots$$

$$2) S = 1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \dots\dots$$

$$3) S = 1 + \frac{1}{3} + \frac{1}{5} + \frac{1}{7} + \dots\dots$$

$$4) S = -1 + \frac{1}{2!} - \frac{1}{3!} + \frac{1}{4!} + \dots\dots$$

$$5) S = \frac{1}{2} - \frac{2}{3^2} + \frac{3}{4^3} - \frac{4}{5^4} + \dots\dots$$

$$6) S = 1 + \frac{1}{3} + \frac{1}{6} + \frac{1}{10} + \frac{1}{15} + \dots\dots$$

$$7) S = \frac{1}{2} + 1 + \frac{3}{4} + 1 + \frac{5}{2} + 3 + \frac{7}{4} + 2 + \dots\dots$$

$$7) S = \frac{1}{2} + \frac{2}{2} + \frac{3}{4} + \frac{4}{4} + \frac{5}{2} + \frac{6}{2} + \frac{7}{4} + \frac{8}{4} + \dots\dots$$

$$8) S = 1 + 2 + \frac{3}{4} + \frac{4}{9} + \frac{5}{16} + \dots\dots$$