

EVALUATE THE SUMS

$$1.) \sum_{n=0}^{\infty} \frac{2+3^n}{5^n}$$

$$2.) \sum_{n=0}^{\infty} \frac{1+3^{n-1}}{2^{2n+1}}$$

$$3.) \sum_{n=2}^{\infty} e^{3-2n}$$

$$4.) \frac{64}{49} + \frac{8}{7} + 1 + \frac{7}{8} + \frac{49}{64} + \frac{343}{512} + \dots$$