

$$21. 1 + \frac{2}{5} + \frac{4}{25} + \frac{8}{125} + \dots$$

$$r = \frac{2}{5}$$

$$S_{\infty} = \frac{1}{1 - \frac{2}{5}} = \frac{1}{\frac{3}{5}} = \frac{5}{3} \quad \boxed{C}$$

$$22. x = 5 \cos t + 3 \quad y = 5 \sin t - 1$$

GRAPH IN PARAMETRIC MODE

\boxed{C}

$$x = r \cos \theta \quad y = r \sin \theta$$

$$x = 5 \cos \theta \quad y = 5 \sin \theta$$

$$\therefore r = 5$$

$$x = \underline{5 \cos \theta + 3} \quad y = \underline{5 \sin \theta - 1}$$

RT 3 DOWN 1

$$23. x = 6 \cos \frac{4\pi}{3} \quad y = 6 \sin \frac{4\pi}{3}$$

$$x = 6 \left(-\frac{1}{2}\right) \quad y = 6 \left(-\frac{\sqrt{3}}{2}\right)$$

$$(-3, -3\sqrt{3}) \quad \boxed{C}$$

