

$$\boxed{26} \int \sqrt[3]{x^2+2x} (x+1) dx$$

$$= \int (x^2+2x)^{\frac{1}{3}} (x+1) dx$$

$\downarrow$   
 $2x+2$

$$= \frac{1}{2} \int (x^2+2x)^{\frac{1}{2}} (x+1) dx$$

$$= \frac{1}{2} \cdot \frac{(x^2+2x)^{\frac{3}{2}}}{\frac{3}{2}} + C$$

$$= \frac{2}{6} (x^2+2x)^{\frac{3}{2}} + C$$

$$= \frac{1}{3} (x^2+2x)^{\frac{3}{2}} + C$$

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$$\boxed{32} \int \frac{x^2+1}{\sqrt{x^3+3x+10}} dx$$

$$= \int (x^2+1) (x^3+3x+10)^{-\frac{1}{2}} dx$$

$\downarrow$   
 $3x^2+3$

$$= \frac{1}{3} \int 3(x^2+1) (x^3+3x+10)^{-\frac{1}{2}} dx$$

$$= \frac{1}{3} \frac{(x^3+3x+10)^{\frac{1}{2}}}{\frac{1}{2}} + C$$

$$= \frac{2}{3} (x^3+3x+10)^{\frac{1}{2}} + C$$