(а) $\int \ln x\, dx,$

(б) $\int \operatorname{arctg} x\, dx$

(в) $\int \arcsin x\, dx$

S lnx dx=xlnx-Sxdx/x=xlnx-Sdx=
xlnx-x

u=lnx
dv=dx
v=x
du=dx/x

$$\int u\, dv = uv - \int v\, du$$

S(arctgx)dx=xarctgx - Sx/(1+x^2)=
=xarctgx - Sxdx/(1+x^2)=
=xarctgx-1/2Sd(1+x^2)/(1+x^2)=[t=1+x^2]=
=xarctgx-1/2Sdt/t=xarctgx-1/2ln|t|+C=
xarctgx-1/2ln(1+x^2)+C

u=arctgx
dv=dx
v=x
du=dx/(1+x^2)

S(arcsinx)dx=
=xarcsinx-S(xdx/V(1-x^2))=
=xarcsinx+1/2S(d(-x^2)/V(1-x^2))=
=xarcsinx+1/2S(d(1-x^2)/V(1-x^2))=
=[t=1-x^2]=xarcsinx+1/2S(t^(-1/2)dt)=
=xarcsinx+½*Vt/(1/2)=xarcsinx+V(1-x^2)+C
u=arcsinx
dv=dx
v=x
du=dx/V(1-x^2)