Simple integrals for plane current distributions.

```
$Assumptions = z ≠ 0 && z ∈ Reals && R > 0;
Integrate[ r (z^2 + r^2)^(-3 / 2), r]
Integrate[ r (z^2 + r^2)^(-3 / 2), {r, 0, Infinity}]
(*Integrate[ r (z^2 + r^2)^(-3/2), {r,0,R}]*)

$Assumptions = r > 0;
Integrate[ (z^2 + r^2)^(-3 / 2), {z, -Infinity, Infinity}]
```

$$-\frac{1}{\sqrt{r^2+z^2}}$$

$$\frac{1}{\text{Abs}[z]}$$

$$\frac{2}{r^2}$$