14. $\int \frac{x-4}{\sqrt{x^2-8x}}\,dx$

$u = x^2-8x \qquad du = (2x-8)\,dx$

$= 2(x-4)\,dx$

$= \frac{1}{2}\int \frac{2(x-4)}{\sqrt{x^2-8x}}\,dx$

$= \frac{1}{2}\int \frac{1}{\sqrt{u}}\,du$

$= \frac{1}{2}\int \frac{1}{u^{1/2}}\,du$

$= \frac{1}{2}\int u^{-\frac{1}{2}}\,du$

$= \frac{1}{2}\cdot \frac{u^{-\frac{1}{2}+1}}{-\frac{1}{2}+1} + C$

$= \frac{1}{2}\cdot \frac{u^{\frac{1}{2}}}{\frac{1}{2}} + C$

$= u^{\frac{1}{2}} + C$

$= \sqrt{u} + C$

$= \boxed{\sqrt{x^2-8x} + C}$