

Question 1 Choose the best integration technique for each integral.

Integral	u – substitution $u = \dots, du = \dots$	integration by parts $u = \dots, v' = \dots$	trigonometric substitution $x = \dots, dx = \dots$	integration by fractional parts general terms
$\int x \ln(x) dx$				
$\int \frac{1}{x^2-7x+10} dx$				
$\int \frac{1}{4-x^2} dx$				
$\int \frac{1}{(9x^2-1)^{5/2}} dx$				
$\int 5xe^{x^2} dx$				
$\int \frac{1}{x(x+1)} dx$				
$\int \frac{3x+2}{x^2-2x+1} dx$				
$\int 3x \sin(x^2) dx$				
$\int x \cos(x) dx$				
$\int x^2 e^x dx$				
$\int \frac{e^{\sqrt{x}}}{2\sqrt{x}} dx$				
$\int \frac{2x}{4+x^2} dx$				

