Math 32 – Workshop #20

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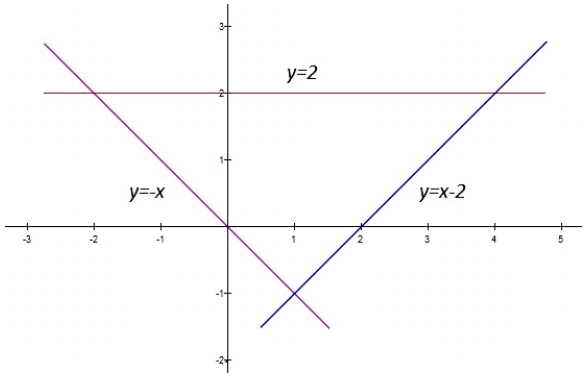
1. Integrate completely.

   (a) $\int_{-1}^{2}\int_{-y}^{y+2}(x+2y^2)dxdy$

   (b) $\int_{0}^{1}\int_{0}^{x^3}e^{\frac{y}{x}}dydx$

2. A region R is bounded by $y=-x$, $y=2$, and $y=x-2$. Set up the integral $\iint_R f(x,y)dA$ first as a $dxdy$ integral, and then as a $dydx$ integral.



3. Evaluate $\iint_R xy\,dA$, where R is the region enclosed by the quarter circle in Q_{III} with equation $x^2+y^2=4$.