1. $\int_{-2}^{2}(\int_{0}^{y^2} 1+x^2y^2dd)dy =$

   - $\int_{0}^{y^2} 1+x^2y^2dy =$
     $x+\frac{x^3y^2}{3}\Big|_0^{y^2} =$
     $y^2+\frac{y^5}{3}$
   - $\int_{-2}^{2} y^2+\frac{y^5}{3}dy =$
     $\frac{y^3}{3}+\frac{y^6}{18}\Big|_{-2}^{2} =$
     $\frac{2^3}{3}+\frac{2^6}{18}+\frac{2^3}{3}-\frac{2^6}{18} =$
     $\frac{16}{3}$

2. $z=6-3x-2y$

   - $\int_{0}^{2}(\int_{0}^{3-\frac{3}{2}x} 6-3x-2ydy)dx$
     - $\int_{0}^{3-\frac{3}{2}x} 6-3x-2ydy =$
       $6y-3xy-y^2\big|_0^{3-\frac{3}{2}x} =$
       $6(3-\frac{3}{2}x)-3x(3-\frac{3}{2}x)-(3-\frac{3}{2}x)^2 =$
       $18-\cancel{\frac{18}{2}x}-9x+\frac{9}{2}x^2-\frac{9}{4}x^2+\cancel{\frac{18}{2}x}-9 =$
       $9-9x+\frac{9}{4}x^2$
       $9\cdot(1-x+\frac{1}{4}x^2)$
     - $9\cdot\int_{0}^{2} 1-x+\frac{1}{4}x^2dx =$
       $9\cdot x-\frac{x^2}{2}+\frac{1}{12}x^3\Big|_0^{2} =$
       $9(2-2+\frac{4}{3}) =$
       12

3. $\int_{0}^{1}(\int_{0}^{\sqrt{(1-x^2)}} ydy)dx$

   - $\int_{0}^{\sqrt{(1-x^2)}} ydy$
     $\frac{y^2}{2}\Big|_0^{\sqrt{(1-x^2)}}$
     $\frac{1-x^2}{2}$
   - $\frac{1}{2}\int_{0}^{1} 1-x^2dx =$
     $\frac{1}{2}\ x-\frac{x^3}{3}\Big|_0^{1} =$
     $\frac{1}{2}(1-\frac{1}{3}) =$
     $\frac{2}{3}$