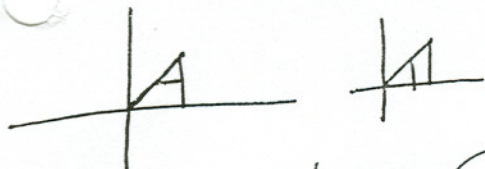


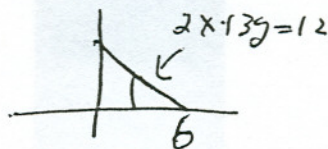
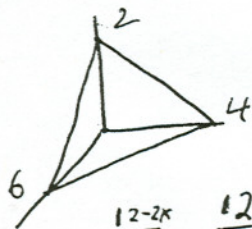
15. Find $\int_0^1 \int_y^1 e^{x^2} dx dy = \int_0^1 \int_0^x e^{x^2} dy dx = \int_0^1 e^{x^2} y \Big|_0^x dx = \int_0^1 x e^{x^2} dx$ 155



$$\frac{1}{2} e^{x^2} \Big|_0^1 = \frac{1}{2} (e - 1)$$

175

16. Consider the solid which is bounded by $2x + 3y + 6z = 12$ and the three coordinate planes. The density of the solid at the point (x, y, z) is x . Find the mass of the solid. Set up the integral, but do NOT compute the integral.



$$\int_0^6 \int_0^{\frac{12-2x}{3}} \int_0^{\frac{12-2x-3y}{6}} x \, dz \, dy \, dx$$