2-1.   **Answer:** 1849

Since $(year\ of\ death) - (year\ of\ birth) = (age\ at\ death)$, we see that $(x + 1)^2 - x^2 = 2x + 1 = 87$. Solving, $x = 43$ and his year of birth, x^2, was 1849.
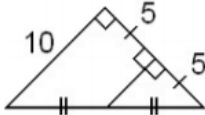
2-2.   **Answer:** 1943

The year of publication of the 4th book is the average of the publication years of all 7 books. The average is $\frac{13,601}{7} = 1,943$.

2-3.   **Answer:** 28, 39

Let the 2-digit number be $10t + u$. Then, $(10t + u) - tu = 12$. Solving, $t = \frac{12-u}{10-u} = 1 + \frac{2}{10-u}$. Since t is a positive integer if and only if $10 - u$ is 2 or 1, the two values of u are 8 and 9. The solutions are 28, 39.

2-4.   **Answer:** 200

A line through the midpoints of two sides of a triangle is parallel to the third side. Therefore, the original triangle is an isosceles right triangle, and its base-length $10\sqrt{2}$. Its square is 200.

2-5.   **Answer:** 48
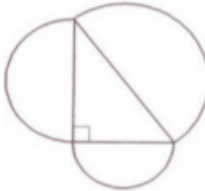
Since the areas of the full circles would be 18π, 32π, and 50π, their radii would have respective lengths of $3\sqrt{2}, 4\sqrt{2}$, and $5\sqrt{2}$. The lengths of the sides of the triangle are $6\sqrt{2}, 8\sqrt{2}$, and $10\sqrt{2}$, so its area is $\frac{1}{2} \times 6\sqrt{2} \times 8\sqrt{2} = 48$.

2-6.   **Answer:** $(2, -8), (2,2)$
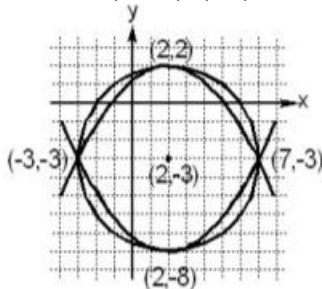
In the first equation, after completing the square, we will get $(x - 2)^2 + (y + 3)^2 = 25$, a circle with center at $(2, -3)$ and a radius length of 5. The third point shared by the 2 curves must be an endpoint of the diameter which is perpendicular to the diameter whose endpoints are $(-3, -3)$ and $(7, -3)$. The two possibilities for the coordinates are $(2, -8), (2,2)$.