

$$\left. \begin{aligned} (x+6)^2 + (y-9)^2 &= 52 \\ x^2 + y^2 &= 13 \end{aligned} \right\}$$

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$$x^2 + 12x + 36 + y^2 - 18y + 81 = 52$$

$$x^2 + y^2 = -12x + 18y - 65$$

$$x^2 + y^2 = 13$$

$$13 = -12x + 18y - 65$$

$$x^2 = 13 - y^2$$

$$13 = -12\sqrt{13-y^2} + 18y - 65$$

$$78 - 18y = -12\sqrt{13-y^2}$$

$$-6.5 + 1.5y = \sqrt{13-y^2} \quad | \cdot 12$$

$$6.5^2 + 1.5y^2 = 13 - y^2$$

$$42.25 + 2.25y^2 - 13 + y^2 = 0$$

$$3.25y^2 + 29.25 = 0$$

$$3.25y^2 + 29.25 = 0$$

$$y^2 = \frac{29.25}{3.25}$$

$$y^2 = 9 \rightarrow \boxed{y = \pm 3}$$

$$x^2 + 3^2 = 13$$

$$x^2 = 13 - 9$$

$$x^2 = 4$$

$$\boxed{x = \pm 2}$$