Jo and David picked 92 quarts of berries at King'a Orchard. If David picked 6 more quarts than jo picked, how many quarts did Jo pick?

Solution.
x quarts of berries – Jo picked, y quarts of berries – David picked. Write the equation system with two variables according to the condition of the task:

$$\begin{cases} y + x = 92, \\ y - x = 6; \end{cases}$$

Solve the system of linear algebraic equations by the method of algebraic addition. Add term by term the equations of the system:

$$+\begin{cases} y + x = 92, \\ y - x = 6; \end{cases}$$

$$y + y + x - x = 92 + 6,$$
$$2y = 98,$$
$$y = 98 \div 2,$$
$$y = 49.$$

Insert the value $y = 49$ into the first equation of the system:

$$49 + x = 92,$$
$$x = 92 - 49,$$
$$x = 43.$$

Answer: Jo picked 43 quarts of berries.