**Use elimination to solve the system.**

1. $\left\{\begin{array}{c}2x+3y=2\\x-2y=8\end{array}\right.$ 2. $\left\{\begin{array}{c}2x+5y=16\\3x-7y=24\end{array}\right.$ 3. $\left\{\begin{array}{c}3r+4s=3\\r-2s=-4\end{array}\right.$

4. $\left\{\begin{array}{c}5x-6y=4\\3x+7y=8\end{array}\right.$ 5. $\left\{\begin{array}{c}\frac{1}{3}c+\frac{1}{2}d=5\\c-\frac{2}{3}d=-1\end{array}\right.$ 6. $\left\{\begin{array}{c}\sqrt{3} x-\sqrt{2} y=2\sqrt{3}\\2\sqrt{2} x+\sqrt{3} y=\sqrt{2}\end{array}\right.$

7. $\left\{\begin{array}{c}2x-3y=5\\-6x+9y=12\end{array}\right.$ 8. $\left\{\begin{array}{c}3m-4n=2\\-6m+8n=-4\end{array}\right.$ 9. $\left\{\begin{array}{c}\frac{2}{x}+\frac{3}{y}=-2\\\frac{4}{x}-\frac{5}{y}=1\end{array}\right.$

10. The price admission to a high school play was $3.00 for students and $4.50 for nonstudents. If 450 tickets were sold for a total of $1555.50, how many of each kind were purchased?

11. An airline that flies from Los Angeles to Albuquerque with a stopover in Phoenix charges a fare of $45 to Phoenix and a fare of $60 from Los Angeles to Albuquerque. A total of 185 passengers boarded the plane in Los Angeles, and fares totaled $10,500. How many passengers got off the plane in Phoenix?

12. A man rows a boat 500 feet upstream against a constant current in 10 minutes. He then rows 300 feet downstream (with the same current) in 5 minutes. Find the speed of the current and the equivalent rate at which he can row in still water.

13. A merchant wishes to mix peanuts costing $3 per pound with cashews costing $8 per pound to obtain 60 pounds of a mixture costing $5 per pound. How many pounds of each variety should be mixed?

14. A silversmith has two alloys, one containing 35% silver and the other 60% silver. How much of each should be melted and combined to obtain 100 grams of an alloy containing 50% silver?