

## **Systems of Equations Word Problems**

31. Pump A and Pump B fill a 100-gallon tank. If Pump A runs for 2 hours and Pump B runs for 5 hours, it's filled. If Pump A runs for 4 hours and Pump B for 2 hours, it's filled. What are the pumping rates (gallons per hour) of Pump A and Pump B?

32. Two machines, A and B, produce widgets. Machine A produces a widgets per hour and Machine B produces b widgets per hour. Working together for 2 hours, they produce 100 widgets. If Machine A works for 3 hours and Machine B works for 1 hour, they produce 90 widgets. How many widgets does each machine produce per hour?

33. A student has to solve 20 math problems. The easy problems are worth 3 points each and the hard problems are worth 5 points each. If the total points for all problems are 76, how many easy and how many hard problems are there?

34. At a carnival, the ring toss costs \$2 per try and the balloon dart game costs \$3 per try. Liam spent \$25 on a total of 10 tries. How many times did he play each game?

35. A streaming service has two plans. Plan A costs \$10 per month plus \$1 per movie rented. Plan B costs \$5 per month plus \$2 per movie rented. For how many rented movies is the cost of the two plans the same? What is that cost?