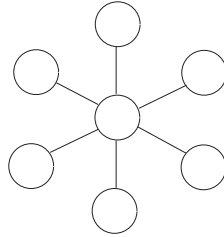


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## Sections 1.1/1.2: Problem Solving

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1. Place the numbers 1, 2, 3, 4, 5, 6, 7 into the circles so that any three numbers in a line through the center give the same sum.



2. Mike said that when he opened his book, the sum of the page numbers of the two facing pages was 106. Prove he was wrong.

3. How would you cut a cake into 8 equal servings using only three cuts?

4. In a certain bank the positions of cashier, manager, and teller are held by Brown, Jones and Smith, though not necessarily in that order. The teller, who was an only child, earns the least. Smith, who married Brown's sister, earns more than the manager. What position does each man fill?

5. Find the missing term in the following sequence.

10, 17, \_\_, 37, 50, 65, 82, 101

6. A farmer looks out in the barnyard and sees a number of pigs and chickens. The farmer says to her daughter, "I count 24 heads and 80 feet." How many pigs and how many chickens are out there?

7. Five couples were married last week, each on a different weekday. From the information provided, determine the woman and man who make up each couple, as well as the day on which each couple was married.
- Anne was married on Monday, but not to Wally.
  - Stan's wedding was on Wednesday.
  - Rob was married on Friday, but not to Ida.
  - Vern (who married Fran) was married the day after Eve.
  - The fifth woman's name is Kayla and the fifth man's name is John.

8. Mike said to Linda, "Bet you can't guess the number of candies I have in this sack."

"Give me a clue," she said.

"I have more than 50 but fewer than 125. If you divide them into piles of 8, there are 2 left over. If you divide them into piles of 7, there is 1 left over," said Mike.

How many candies does Mike have?

9. Find the number below that is described by the following clues.

- The sum of the digits is 14.
- The number is a multiple of 5.
- The number is in the thousands.
- The number is not odd.
- The number is less than 2411.

2570	2290	2660	1355	1832
1058	2435	1580	1455	860
1922	1770	905	770	1680