49. (10) In the equation

\[(x^2 + \cdots)(x + 1) = (x^4 + 1)(x + 2)\]

one number is replaced by dots. Find the number if it is known that one of the solutions of the equation is 1.

50. (15) Pinocchio has four cards. Each card has a number written on it. Pinocchio took a pair of his cards and wrote the sum of the numbers on the two cards on a piece of paper. He did this with all possible pairs of his cards (there are six such pairs) and got six numbers on his piece of paper. Later he lost his cards and his piece of paper. However he remembers that among the six numbers on the piece of paper the four smallest numbers were 1, 5, 8, and 9. Can you help Pinocchio to recall the four numbers written on his cards?

51. (10) Tom spends \(\frac{1}{3}\) part of his time on school, \(\frac{1}{4}\) on soccer, \(\frac{1}{5}\) on listening to CD, \(\frac{1}{6}\) on watching TV, \(\frac{1}{7}\) on mathematical seminar. Can he live like that?

52. (15) Mary, Jill, Ann and Susan organized a concert. They sang songs. Every song was performed by three girls. Mary sang 8 songs, more then anybody else. Susan sang 5 songs, less then any other girl. How many different songs were performed at the concert?