414.d. The total ofthe three programs (2 million + 0.5 million + 3 million) is 5.5 million. That leaves 1.5 million (7 million – 5.5 million), and the only single program needing that amount is the senate ofﬁce building remodeling.

415.b. The only two programs that total 1.5 million dollars are the harbor improvements and school music program.

416.a. The total cost ofthe school music program and national radio is $1 million, the amount left after the international airport and agricultural subsidies are funded.

417.c. J will only work in episodes in which M is working and there are no restrictions on O’s schedule. However, N will not work with K, so M must appear and O may appear.

418.d. K will not work with N, so choices c and e are incorrect.M can only work every other week,so choice a is incorrect. Since M is not working, J will not work, so choice b is incorrect.

419.b. Only choice b contains no more than two R-rated movies (Shoutand Mist),at least one G and one PG (Fly,Abra Cadabra, and Jealousy), and only one foreign ﬁlm (Mist).

420.c. The ﬁrst showing of Trek will be over at 10:00. Then, the employees will need 20 minutes to clean the theater, which is 10:20. Since the movies always start on the quarter hour, the second showing of Trek will be 10:30.

421.e. Since Shoutis doing the most business and Trek the second most, they should remain in the two largest theaters. Also, the theater never shows a foreign ﬁlm in the largest theater.Theaters 3 and 4 must show the movies that are rated G and PG, so the movies that are there must stay there. The most logical choice is to put Mist in theater 5 and Fly in theater 6.

422.a. “Honey”and “Sittin’ on the Dock of the Bay” are either 3 and 4 or 4 and 3.The Rascals appear on the list right after Otis Redding,who cannot be #3 (or he would be followed by Bobby Goldsboro), so “Honey” is #3 and “Sittin’ on the Dock of the Bay”is #4; therefore, choices c and eare incorrect.The Rascals are #5 (because they are right after Otis Redding), and Cream appears right after them, so choice d is incorrect. Since Cream has song #6, it cannot be “Hey Jude,”so choice b is incorrect.

423.d. In the previous question, it was determined that #3 is “Honey,”#4 is “Sittin’on the Dock of the Bay,”#5 is “People Got to Be Free,”and #6 is “Sunshine ofYour Love.”Since the #1 song is not “Love Is Blue,”#1 is “Hey Jude,”and #2 is “Love Is Blue.” Here’s a quick illustration ofhow to work “logic game” puzzles,using the situation in questions 424 and 425 as an example. First, read the paragraph. Then, construct a diagram or table like the one below.Write down the letters that represent the names of the people at the party. Next, add any other information that is given. You know that Quentin is an accountant and Sarah is a ﬂorist;you know which objects represent their type of work.You also know that Thomas is dressed as a camera, so he must be the photographer. Since none ofthe men is a doctor,Rachel must be the doctor. That leaves Ulysses, who must be the chef. Once you’ve filled in your diagram and made the deductions, answering the questions is the easy part. Q accountant pencil, R doctor thermometer, S ﬂorist ﬂower, T photographer camera, U chef spoon

424.b. See the table above. The thermometer costume logically would be worn by the doctor. According to the information, none of the men is a doctor. Also, Sarah is a ﬂorist, so Rachel must be the doctor wearing the thermometer costume.

425.e. Ulysses cannot be a doctor, because that is Rachel. Quentin is an accountant, Thomas must be a photographer, and Sarah is a ﬂorist. That leaves chef for Ulysses. We also know the chef must be a man, because neither of the women is dressed as a spoon.

426.d. The person who ordered the vegetable burger cannot be sitting in chairs 1 or 6,because she is sitting between two people.She also cannot be sitting in chairs 3 or 4,because those customers did not order sandwiches. Since she is not sitting in chair 2, she must be in chair 5.

427.c. The customer who ordered soup must be in chair 3 or 4,where the non-sandwich orders go. The other non-sandwich order is fried eggs, and that person is sitting next to the customer in chair 5 (who ordered the vegetable burger), so the fried eggs go to chair 4 and the soup to chair 3.

428.b. The orders that go to chairs 3, 4, 5, and 6 are already determined,so the ham sandwich must go to chair 1 or 2. The customer who ordered the hamburger is not sitting next to the person who ordered the soup in chair 3, so the hamburger must go to chair 1 and the ham sandwich to chair 2.

429.a. The person who ordered potato salad cannot be in chair 1 or 6, since he is sitting between two people. The person who ordered fried eggs ordered hash browns and is sitting in chair 4. The person who ordered potato salad is on one side of chair 4, either 3 or 5. He cannot be in chair 5 and still be next to both the hash browns and the cole slaw, so he must be in chair 3, which is where the soup was ordered.

430.c. If the potato salad is with the soup and the hash browns are with the fried eggs, then the cole slaw must be with the ham sandwich, in chairs 2, 3, and 4. The lettuce salad is with the vegetable burger in chair 5. The onion rings belong to the cheeseburger in chair 6, leaving the french fries for the hamburger in chair 1.

431.a. The vice president’s car cannot be red,because that is the CEO’s car,which is in the ﬁrst space. Nor can it be purple, because that is the treasurer’s car,which is in the last space,or yellow, because that is the secretary’s. The president’s car must be blue, because it is parked between a red car (in the ﬁrst space) and a green car, which must be the vice president’s.

432.c. The CEO drives a red car and parks in the ﬁrst space. Enid drives a green car; Bert’s car is not in the ﬁrst space;David’s is not in the ﬁrst space, but the last.Alice’s car is parked next to David’s, so Cheryl is the CEO.

433.e. Cheryl cannot be the secretary, since she’s the CEO, nor can Enid, because she drives a green car, and the secretary drives a yellow car. David’s,the purple car,is in the last space.Alice is the secretary, because her car is parked next to David’s,which is where the secretary’s car is parked.

434.d. The Whippets cannot be in Jersey, Hudson, or Fulton,since they have beaten those teams.The Antelopes are in Groton, so the Whippets are in Ivy.

435.e. The Panthers cannot be in Ivy or Groton, because the Whippets and Antelopes are there. Fulton has beaten the Panthers,so they cannot be in Fulton. Fulton has also beaten the Kangaroos,so the only town left for the Kangaroos is Jersey. That leaves Hudson for the Panthers.

436.b. Every team and town is matched up, except Fulton and the Gazelles,so the Gazelles must be in Fulton.

437.a. Kevin is allergic to daisies and iris;he’s not getting gladioli because it’s not his housewarming. The roses are going to Jenny, leaving the carnations for Kevin.

438.d. Jenny is getting roses and Kevin is getting carnations.Neither Liz nor Inez would be getting a housewarming present. Michael is getting gladioli.

439.e. The only ﬂowers unassigned are iris and daisies. Liz is allergic to daisies,so she is getting the iris.

440.e. The city that got the least rain is in the desert. New Town is in the mountains. Last Stand got more rain than Olliopolis, so it cannot be the city with the least rain;also,Mile City cannot be the city with the least rain. Olliopolis got 44 inches of rain. Therefore, Polberg is in the desert and got 12 inches of rain.

441.a. Olliopolis got 44 inches of rain.Last Stand got more rain than that, so it got 65 inches, which is the most.

442.b. Olliopolis got 44 inches of rain,Last Stand got 65, and Polberg got 12. New Town is in the mountains, and the city in the mountains got 32 inches of rain. Therefore, Mile City got 27.

443.c. Olliopolis got 44 inches of rain, so it is not in the desert or the forest. The city in the mountains got 32 inches of rain;the coast 27.Therefore, Olliopolis is in a valley.

444.d. The moderator sits in seat #3. It cannot, then, be Gary or Jarrod or Lane, who sit next to the moderator.Heloise is not the moderator;therefore, the moderator is Kate.

445.a. Jarrod cannot sit in seat #3 because he is not the moderator. Nor can he sit in seat #2 or #4, because he does not sit next to the moderator. Heloise cannot sit on an end, nor in seat #3 or #4,so she is in seat #2,between the moderator (Kate) and Jarrod, who must be in seat #1.

446.e. Jarrod sits in seat #1 and is not the moderator; nor is he the pilot or the attorney. The attorney sits in seat #4 and cannot sit next to the explorer. Therefore, the pilot, Lane, is in seat #5, and the explorer must be in seat #1,Jarrod’s seat.

447.b. Jarrod is the explorer, Lane is the pilot, Kate is the moderator, and Gary is the attorney. Heloise must be the writer.

448.d. Zinnia plants tomatoes each year, so choice eis incorrect.Each year,she plants either carrots or cabbage,but not both.She will plant cabbage in the second year,so she will plant carrots in the first. She never plants carrots and peppers together, so the ﬁrst year is tomatoes, carrots, beans and the second is tomatoes, cabbage, peppers.

449.c. Dusting must be done on Tuesday, Wednesday, or Thursday. However, the mopping is done on Thursday, and Terry does his task on Wednesday. Therefore, Sally does the dusting on Tuesday.

450.d. Terry does not dust, mop, do laundry, or vacuum. Therefore, Terry does the sweeping on Wednesday.

451.b. Dusting is on Tuesday,sweeping is on Wednesday,mopping is on Thursday,and laundry is on Friday. Therefore, the vacuuming is done on Monday.

452.e. Vernon does not vacuum, dust, or sweep. Randy does the vacuuming,Sally does the dusting,Terry does the sweeping—leaving laundry and mopping for Uma and Vernon. Uma does not do laundry; therefore, she must mop, and Vernon does the laundry.

453.d. Uma does the mopping, which is done on Thursday.