**Developing Mathematical Fluency Book**

2. Six toy cars can be parked in a row 16 inches long. How

many toy cars can be parked in a row 64 inches long? 40

inches long? 104 inches?

**9. Paul’s swimming pool is in the shape of a rectangle, 19 feet long and 13 feet wide. There is a 2 foot wide walkway around the pool. A fence is build around the walkway. What is the length of fence needed?**

**12. The dimensions of a Greek Temple are 48 meters by 32 meters. It is in the shape of a rectangle. Eight meters from the walls, is a row of pillars. If the pillars are eight metersapart how many are there?**

**17. A rectangular box holds 36 cubes. When she opened the box, Marcia could see 12 on the top. If she could open it at an end, how many cubes would she see?**

**19. A 6 inch by 8 inch photograph is to be enlarged so that the base which was 6 is now 15 inches. How high will the enlarged photograph be?**

**20. The area of the floor of a rectangular room is 315 sq. ft.The area of one wall is 120 sq. ft. and the area of another is 168 sq. ft. The floor and ceiling are parallel. What is the volume of the room?**

**21. Paula‘s swimming pool is in the shape of a rectangle, 32 feet long and 23 feet wide. There is a 3 feet wide walkway around the pool. A fence is build around the walkway. What is the length of fence needed?**

**23. Some hexagons are put together in a row as**

**shown below. Each side of a hexagon is 7 cm long. If**

**the row has 43 hexagons, what is the distance**

**around the row? 2,349 hexagons? n hexagons?**

**26. A square piece of paper is folded in half to form a**

**rectangle with a perimeter of 12 cm. What is the area of the original square?**

**31. Mr. Barnes built a fence around his square chicken yard. He used 24 post and placed then 10 feet apart. What is the area of the space enclosed?**

**34. A floor, 9 feet by 12 feet, is to be tiled with 4 inch by 6 inch tiles. How many tiles are needed to cover the floor?**

**37. A pizza in the shape of a rectangle is to serve 18 people. Everyone is to get the same amount of pizza. If the pizza is 30 inches by 12 inches, describe the piece each person will get.**

**39. Two circles just touch a rectangle and each other as shown in the figure below. The area of the rectangle is 18 square cm. What is the radius of each circle?**

**40. Angela is deciding how many plants to buy for her garden. The diagram below represents Angela‘s garden. The curved area is a semi-circle. Find the area of her garden in square feet.**

**44. A block made of small cubes is dipped in paint. The**

**block has four cubes on each edge as shown below. How**

**many small cubes have paint on them?**

**52. Wanda Fish is planning a rectangular swimming pool and plans to use square tiles to cover the bottom. She will use white tiles to form a rectangle in the middle and then make a uniform border of blue tiles. After the tiles have been delivered, she decides to put the blue tiles in the middle and use the white tiles for the border. As it so happens, the number of tiles was such that this was possible but the rectangle did not necessarily have the same dimensions. What is the smallest number of tiles that could have been delivered?**