NCC 2015
Part B

Student name: _____

1. Alice has 40 nickels and 15 quarters. How many cents does she have?
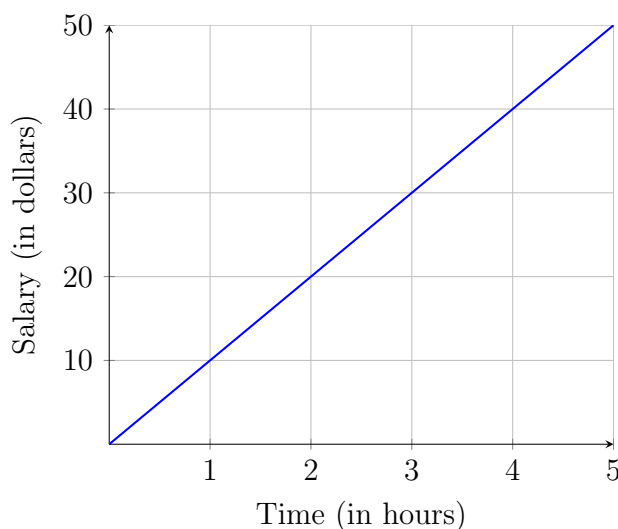
   Answer: _____

2. A container is filled to the top with 1 kg of water. A rock with mass 800 g is added to the container, and 100 g of water spills out. What is the mass of the contents of the container now, in grams?

   Answer: _____

3. Susan lives on the 6th floor. It takes her 15 seconds to go up 1 floor. How many seconds does it take for her to reach the 6th floor from the 1st floor?

   Answer: _____

4. Alice is working hard and is earning a salary. The following is a graph of the amount of money that she earns for the amount of time she spends working. How much will she make by working 4 hours and 15 minutes?

   Answer: _____

5. A snail starts climbing up a wall that is 63 meters in height on January 1st. The snail climbs 7 meters up during the day, and slips 3 meters down during the night. What is the date that the snail reaches the top of the wall?

   Answer: _____

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6. Determine the missing number in the pattern below:

$$1, 3, 7, 15, 31, ?, 127$$

Answer: _____

7. Alice and Bob have 6 children, and each of their children has 5 children. Jane is one of the grandchildren of Alice and Bob. How many first cousins does Jane have? (Two people are first cousins if they don't have the same parents but they do have the same grandparents.)

Answer: _____

8. The numbers from 1 to 4 are to be written in a 4×4 grid so that each number appears exactly once in each row and in each column. What number must go in the square marked by x?

		4	
1			2
	2	x	

Answer: _____