Answer for quiz 1:

1. x= 8 y=4 2x= 16, 3y = 12, A is greater
2. The shop is open for 7 days. SO, 7\*50 = 350, The assistant works 30 hours, So, 30\*40 = 1200. 900 items sold = 0.5\*900= 450

So, total cost =(1200+350+450)=2000.

Earnings = 2700,

Profit= (2700-2000)

        =700

1. let, Muriel’s age be x, and Eustace's age be y. In that case, 3x-2y= 16. Also, Eustace is three years older. so, y=x+3.

Solving, x= 62, and x+10= 72

1. 8's power goes on a 4 step cycle. 8^1= 8, 8^2=64, 8^3= 512, 8^4= 4096, 8^5= 32768. So, 8,4,2,6 and the cycle repeats. Since 64 mod 4= 0, the last digit will be 6.
2. here, x,y,z all of them or neither of them can be smaller, equal, or greater than 15. So, it cannot be determined
3. Average of 3given numbers= (48+57+30)/3=135/3= 45

So, the average of the consecutive numbers will be=45+2 =47. and the greatest one will be, 47+1=48

Answer for quiz 2:

1. since, we know, the area would be, 0.5\*b\*h, and b=2h, so, area= 0.5\*2h\*h=h^2
2. There are 8 categories. So, the average weight will be, 100/8=12.5%. Only two categories in the pie chart exceed 12.5%. Hence, the answer is two.
3. Here, the total weight is 160 million tonnes, and 8 million tonnes is (8/160)=5% of it. Only one category weights less than 5%. Hence, the answer is one.
4. Glass weight is 8.2%, 10% of it =0.82%

Paper waste is 39.1%, 50 of it is 19.55%

Total is around 20.37%. Rounding to20%

1. Of the 10digits, if we place 0,3,6,9 we get a number that is divisible by 3. So, the probability will be 4/10=⅖
2. This is a tricky one and kinda requires intuition. So, we start with 3, and 5, and the 3rdone is 3+5= 8. If we calculate up to the 9th number, we will see a pattern that only the 3rd number is even. So, the probability of being even will be ⅓ and odd will be 1-⅓ =⅔
3. oO, there are a total of 21 people, of whom 3 will always stay together. If we keep them as 1. The total number will be, (21-3+1)=19. So, 19!. As the guest can sit at either side, so, 19!\*2

Answer for quiz 3:

1. We know for an even number of data, the median will be the average of the 2 middle ones. Here, n=4, so, the median will be the average of n/2 and(n/2)+1 no numbers. So, 4+x=5+y, calculating, y-x=-1
2. This is a normal distribution problem. Mean is 35. SD is 5. So, 40 will have from 0 to +1SD rage. So, 0.5+.34= 0.84 or 84%
3. If we plug in values, we see that k=½ will give us the right answer
4. We calculate the fractions, 3.6%=36/1000; 5x/12, so (361000\*5x12)=3x200. , so number 2 is the only option that matches it.
5. From the list, we can see that the difference between the numbers on the list is the same. We know that the SD of a series of numbers is not dependent on the mean, rather than the difference between the numbers. Since the distances are the same in this case. Their SD will be equal. So, option C is the correct answer
6. Again this is a mean and SD, and range problem. Here, the mean in 6.3 and SD is 1.2. The question mentions 1.5SD so, 1.5\*1.2= 1.8, so, 6.3+/-1.8 or the numbers within 4.5 to 8.1 will be the answer
7. So, adding or subtracting the same amount for all the numbers in a list will not change the range. However, multiplying will expand it and dividing will contract it. So, multiplying by 20 will expand the range 20 times, and dividing by 4 will contract it 4 times. So the new range will be, 35\*20/4=175