1）What is the median number of employees assigned per project for the projects at Company Z?

(1) 25 percent of the projects at Company Z have 4 or more employees assigned to each project.

(2) 35 percent of the projects at Company Z have 2 or fewer employees assigned to each project.

- Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
- Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
- BOTH statements TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.
- EACH statement ALONE is sufficient.
- Statements (1) and (2) TOGETHER are NOT sufficient.

2）If k , m , and p are integers, is $k - m - p$ odd?

(1) k and m are even and p is odd.

(2) k , m , and p are consecutive integers.

- Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
- Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
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- EACH statement ALONE is sufficient.
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3）If two copying machines work simultaneously at their respective constant rates, how many copies do they produce in 5 minutes?

(1) One of the machines produces copies at the constant rate of 250 copies per minute.

(2) One of the machines produces copies at twice the constant rate of the other machine.

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4）If an integer n is to be chosen at random from the integers 1 to 96, inclusive, what is the probability that $n(n + 1)(n + 2)$ will be divisible by 8?

- $\frac{1}{4}$
- $\frac{3}{8}$
- $\frac{1}{2}$
- $\frac{5}{8}$
- $\frac{3}{4}$

5） A total of $60,000 was invested for one year. Part of this amount earned simple annual interest at the rate of x percent per year, and the rest earned simple annual interest at the rate of y percent per year. If the total interest earned by the $60,000 for that year was $4,080, what is the value of x?

(1) $x = \frac{3y}{4}$

(2) The ratio of the amount that earned interest at the rate of x percent per year to the amount that earned interest at the rate of y percent per year was 3 to 2.

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6） If n and k are positive integers, is n divisible by 6?

(1) $n = k\,(k + 1)(k - 1)$

(2) $k - 1$ is a multiple of 3.

- Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
- Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
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7） The annual rent collected by a corporation from a certain building was x percent more in 1998 than in 1997 and y percent less in 1999 than in 1998. Was the annual rent collected by the corporation from the building more in 1999 than in 1997?

(1) $x > y$

(2) $\frac{xy}{100} < x - y$

- Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
- Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
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8) The numbers x and y are three-digit positive integers, and $x + y$ is a four-digit integer. The tens digit of x equals 7 and the tens digit of y equals 5. If $x < y$, which of the following must be true?

I. The units digit of $x + y$ is greater than the units digit of either x or y.
II. The tens digit of $x + y$ equals 2.
III. The hundreds digit of y is at least 5.

- II only
- III only
- I and II
- I and III
- II and III

9) A company has assigned a distinct 3-digit code number to each of its 330 employees. Each code number was formed from the digits

2, 3, 4, 5, 6, 7, 8, 9

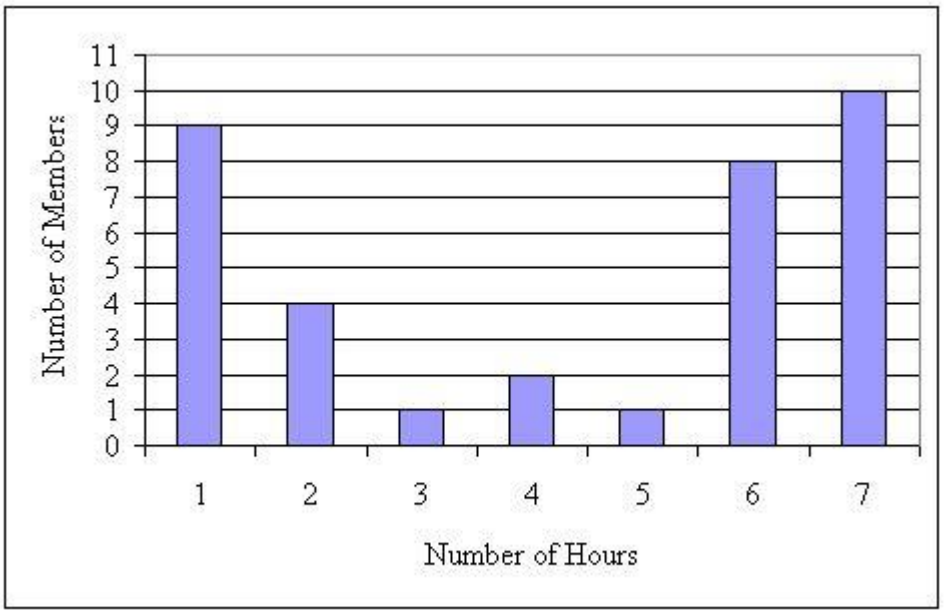
and no digit appears more than once in any one code number. How many unassigned code numbers are there?

- 6
- 58
- 174
- 182
- 399

10) If the sequence $x_1, x_2, x_3, \ldots, x_n, \ldots$ is such that $x_1 = 3$ and $x_{n+1} = 2x_n - 1$ for $n \geq 1$, then $x_{20} - x_{19} =$

- 2^{19}
- 2^{20}
- 2^{21}
- $2^{20} - 1$
- $2^{21} - 1$

11)



Yesterday each of the 35 members of a certain task force spent some time working on project *P*. The graph shows the number of hours and the number of members who spent that number of hours working on project *P* yesterday. What was the median number of hours that the members of the task force spent working on project *P* yesterday?

- 2
- 3
- 4
- 5
- 6

12）

	Favorable	Unfavorable	Not Sure
Candidate *M*	40	20	40
Candidate *N*	30	35	35

The table above shows the results of a survey of 100 voters each responded "favorable" or "unfavorable" or "not sure" when asked about their impressions of candidate *M* and of candidate *N*. What was the number of voters who responded "favorable" for both candidates?

(1) The number of voters who did not respond "favorable" for either candidate was 40.

(2) The number of voters who responded "unfavorable" for both candidates was 10.

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13) When tossed, a certain coin has equal probability of landing on either side. If the coin is tossed 3 times, what is the probability that it will land on the same side each time?

- $\frac{1}{8}$
- $\frac{1}{4}$
- $\frac{1}{3}$
- $\frac{3}{8}$
- $\frac{1}{2}$

14) In the decimal representation of x, where $0 < x < 1$, is the tenths digit of x nonzero?
(1) $16x$ is an integer.
(2) $8x$ is an integer.

- Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
- Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
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- EACH statement ALONE is sufficient.
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15) What is the remainder when the positive integer x is divided by 8?

(1) When x is divided by 12, the remainder is 5.

(2) When x is divided by 18, the remainder is 11.

- Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
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- EACH statement ALONE is sufficient.
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16) If x, y, and k are positive numbers such that $(\frac{x}{x+y})(10)+(\frac{y}{x+y})(20)=k$ and if $x<y$, which of the following could be the value of k?

- 10
- 12
- 15
- 18
- 30

17)A certain restaurant offers 6 kinds of cheese and 2 kinds of fruit for its dessert platter. If each dessert platter contains an equal number of kinds of cheese and kinds of fruit, how many different dessert platters could the restaurant offer?

- 8
- 12
- 15
- 21
- 27

18) If S is the sum of the reciprocals of the consecutive integers from 91 to 100, inclusive, which of the following is less than S ?

I. $\frac{1}{8}$

II. $\frac{1}{9}$

III. $\frac{1}{10}$

- None
- I only
- III only
- II and III only
- I, II, and III

19) A certain quantity is measured on two different scales, the R-scale and the S-scale, that are related linearly. Measurements on the R-scale of 6 and 24 correspond to measurements on the S-scale of 30 and 60, respectively. What measurement on the R-scale corresponds to a measurement of 100 on the S-scale?

- 20
- 36
- 48
- 60
- 84

20）On Saturday morning, Malachi will begin a camping vacation and he will return home at the end of the first day on which it rains. If on the first three days of the vacation the probability of rain on each day is 0.2, what is the probability that Malachi will return home at the end of the day on the following Monday?

- 0.008
- 0.128
- 0.488
- 0.512
- 0.640

21） If n is a positive integer and r is the remainder when (n-1)(n+1) is divided by 24, what is the value of r?

(1) 2 is not a factor of n.

(2) 3 is not a factor of n.

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- EACH statement ALONE is sufficient.
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22） Last year the price per share of Stock X increased by k percent and the earnings per share of Stock X increased by m percent, where k is greater than m. By what percent did the ratio of price per share to earnings per share increase, in terms of k and m?

- k/m %
- (k-m) %
- [100(k-m)]/(100+k) %
- [100(k-m)]/(100+m) %
- [100(k-m)]/(100+k+m) %

23）On a recent trip, Mary drove 50 miles. What was the average speed at which she drove the 50 miles?

(1) She drove 30 miles at an average speed of 60 miles per hour and then drove the remaining 20 miles at an average speed of 50 miles per hour.

(2) She drove a total of 54 minutes.

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24）A photographer will arrange 6 people of 6 different heights for photograph by placing them in two rows of three so that each person in the first row is standing in front of someone in the second row. The heights of the people within each row must increase from left to right, and each person in the second row must be taller than the person standing in front of him or her. How many such arrangements of the 6 people are possible?

- 5
- 6
- 9
- 24
- 36

25） For a nonnegative integer n, if the remainder is 1 when 2^n is divided by 3, then which of the following must be true?

I. n is greater than zero.
II. $3^n = (-3)^n$
III. $\sqrt{2^n}$ is an integer.

- I only
- II only
- I and II
- I and III
- II and III

26） If a committee of 3 people is to be selected from among 5 married couples so that the committee does not include two people who are married to each other, how many such committees are possible?

- 20
- 40
- 50
- 80
- 120

27）Of the 75 houses in a certain community, 48 have a patio. How many of the houses in the community have a swimming pool?

1)38 of the houses in the community have a patio but do not have a swimmingpool.

2)The number of houses in the community that have a patio and a swimming pool is equal to the number of houses in the community that have neither a swimming pool nor a patio.

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- Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
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- EACH statement ALONE is sufficient.
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28）A certain company assigns employees to offices in such a way that some of the offices can be empty and more than one employee can be assigned to an office. In how many ways can the company assign 3 employees to 2 different offices?

- 5
- 6
- 7
- 8
- 9

29） Last Sunday a certain store sold copies of Newspaper *A* for $1.00 each and copies of Newspaper *B* for $1.25 each, and the store sold no other newspapers that day. If *r* percent of the store's revenues from newspaper sales was from Newspaper *A* and if *p* percent of the newspapers that the store sold were copies of newspaper *A*, which of the following expresses *r* in terms of *p*?

- $100p / (125 - p)$
- $150p / (250 - p)$
- $300p / (375 - p)$
- $400p / (500 - p)$
- $500p / (625 - p)$

30） Joanna bought only $0.15 stamps and $0.29 stamps. How many $0.15 stamps did she buy?

(1) She bought $4.40 worth of stamps.

(2) She bought an equal number of $0.15 stamps and $0.29 stamps.

- Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
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31 Is $|x - y| > |x - z|$?

(1) $|y| > |z|$

(2) $x < 0$

- Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
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答案：1-5. CAEDC　　6-10. ABBAA　　11-15 .EABBE
16-20. DECCB　　21-25.CDDAE　　26-31 .DBDDAE