1. **Positive integers from 1 to 45, inclusive are placed in 5 groups of 9 each. What is the highest possible average of the medians of these 5 groups ?**

A. 25
B. 31
C. 15
D. 26
E. 23

2. If the average of 5 positive integers is 40 and the difference between the largest and the smallest of these 5 numbers is 10, what is the maximum value possible for the largest of these 5 integers ?

A. 50
B. 52
C. 49
D. 48
E. 44

3. **An analysis of the monthly incentives received by 5 salesmen : The mean and median of the incentives is $7000. The only mode among the observations is $12,000. Incentives paid to each salesman were in full thousands. What is the difference between the highest and the lowest incentive received by the 5 salesmen in the month ?**

A. $4000
B. $13,000
C. $9000
D. $5000
E. $11,000

4.

Is 'b' the median of 3 numbers a, b, and c ?

1. $\frac{b}{a} = \frac{c}{b}$
2. $ab < 0$

A. Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

B. Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

C. BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient to answer the question asked.

D. EACH statement ALONE is sufficient to answer the question asked.

E. Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data specific to the problem are needed.

5. **Three friends Alice, Bond and Charlie divide $1105 amongs them in such a way that if $10, $20 and $15 are removed from the sums that Alice, Bond and Charlie received respectively, then the share of the sums that they got will be in the ratio of 11 : 18 : 24. How much did Charlie receive?**

A. $495

B. $510

C. $480

D. $375

E. $360

6. **Mary and Mike enter into a partnership by investing $700 and $300 respectively. At the end of one year, they divided their profits such that a third of the profit is divided equally for the efforts they have put into the business and the remaining amount of profit is divided in the ratio of the investments they made in the business. If Mary received $800 more than Mike did, what was the profit made by their business in that year?**

A. $2000

B. $6000

C. $4000

D. $1333

E. $3000

7. **A, B and C, each working alone can complete a job in 6, 8 and 12 days respectively. If all three of them work together to complete a job and earn $ 2340, what will be C's share of the earnings?**

A. $1100

B. $520

C. $1080

D. $1170

E. $630

8. **In what ratio should a 20% methyl alcohol solution be mixed with a 50% methyl alcohol solution so that the resultant solution has 40% methyl alcohol in it?**

A. 1 : 2

B. 2 : 1

C. 1 : 3

D. 3 : 1

E. 2 : 3

9. **If the price of gasoline increases by 25% and Ron intends to spend only 15% more on gasoline, by how much % should he reduce the quantity of gasoline that he buys?**

A. 10%

B. 12.5%

C. 8%

D. 12%

E. 6.66%

10. **The wages earned by Robin is 30% more than that earned by Erica. The wages earned by Charles is 60% more than that earned by Erica. How much % is the wages earned by Charles more than that earned by Robin?**

A. 23%

B. 18.75%

C. 30%

D. 50%

E. 100%

11. **In an election contested by two parties, Party D secured 12% of the total votes more than Party R. If party R got 132,000 votes, by how many votes did it lose the election?**

A. 240,000

B. 300,000

C. 168,000

D. 36,000

E. 24,000

12. **The difference between the value of a number increased by 12.5% and the value of the original number decreased by 25% is 30. What is the original number?**

A. 60

B. 80

C. 40

D. 120

E. 160

13. **What is the % change in the area of a rectangle when its length increases by 10% and its width decreases by 10%?**

A. 0%

B. 20% increase

C. 20% decrease

D. 1% decrease

E. Insufficient data

14. **If the cost price of 20 articles is equal to the selling price of 25 articles, what is the % profit or % loss made by the merchant?**

A. 25% loss

B. 25% profit

C. 20% loss

D. 20% profit

E. 5% profit

15. **Sam buys 10 apples for $1. At what price should he sell a dozen apples if he wishes to make a profit of 25%?**

A. $0.125

B. $1.25

C. $0.25

D. $1.5

E. $1.8

16. **By selling an article at 80% of its marked price, a merchant makes a loss of 12%. What % profit will the merchant make if the article is sold at 95% of its marked price?**

A. 5% profit

B. 1% loss

C. 10% profit

D. 5.5% profit

E. 4.5% profit

17. **What is the maximum percentage discount that a merchant can offer on her Marked Price so that she ends up selling at no profit or loss, if she had initially marked her goods up by 50%?**

A. 50%

B. 20%

C. 25%

D. 16.67%

E. 33.33%

18. **A merchant who marked his goods up by 50% subsequently offered a discount of 20% on the marked price. What is the percentage profit that the merchant made after offering the discount?**

A. 30%

B. 125%

C. 25%

D. 20%

E. 16.66%

19. **Braun invested a certain sum of money at 8% p.a. simple interest for 'n' years. At the end of 'n' years, Braun got back 4 times his original investment. What is the value of n?**

A. 50 years

B. 25 years

C. 12 years 6 months

D. 37 years 6 months

E. 40 years

20. **Shawn invested one half of his savings in a bond that paid simple interest for 2 years and received $550 as interest. He invested the remaining in a bond that paid compound interest, interest being compounded annually, for the same 2 years at the same rate of interest and received $605 as interest. What was the value of his total savings before investing in these two bonds?**

A. $5500

B. $11000

C. $22000

D. $2750

E. $44000

21. **Ann invested a certain sum of money in a bank that paid simple interest. The amount grew to $240 at the end of 2 years. She waited for another 3 years and got a final amount of $300. What was the principal amount that she invested at the beginning?**

A. $200

B. $150

C. $210

D. $175

E. Insufficient data

22. **Peter invested a certain sum of money in a simple interest bond whose value grew to $300 at the end of 3 years and further to $400 at the end of another 5 years. What was the rate of interest in which he invested his sum?**

A. 12%

B. 12.5%

C. 6.67%

D. 6.25%

E. 8.33%

23. **Data Sufficiency : If a salesman received a commission of 3% of the sales that he has booked in a month, what was the sales booked by the salesman in the month of November 2003?**

1. The sales booked by the salesman in the month of November 2003 minus salesman's commission was $245,000
2. The selling price of the sales booked by the salesman in the month of November 2003 were 125 percent of the original purchase price of $225,000.

A. Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.

B. Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

C. BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient to answer the question asked.

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24. **What is the value of X, if X and Y are two distinct integers and their product is 30?**

1. X is an odd integer
2. X > Y

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25. **What is the standard deviation (SD) of the four numbers p, q, r, s?**

1. The sum of p, q, r and s is 24
2. The sum of the squares of p, q, r and s is 224

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26. **How is Bill related to Betty?**

1. Cindy, the wife of Bill's only brother Chris does not have any siblings.
2. Betty is Cindy's brother in law's wife.

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B. Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

C. BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient to answer the question asked.

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27. **Is y an integer?**

1. y^3 is an integer
2. 3y is an integer

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B. Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

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29. **Is the positive integer m divisible by 6?**

1. m is divisible by 3
2. m is divisible by 4.

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B. Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

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30. **Is ab positive?**

1. $(a + b)^2 < (a - b)^2$
2. $a = b$

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B. Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

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E. Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data specific to the problem are needed.

31. **When Y is divided by 2, is the remainder 1?**

1. $(-1)^{(Y+2)} = -1$
2. Y is prime.

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B. Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

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