

GRE

Quant Reasoning Assessment

Stats and DI

Total Questions: 36

Duration: 36 Min

SECTION: I- STATISTICS

1. The arithmetic mean of two numbers is 5 and the geometric mean is 4. Which of the following are the numbers? Indicate all correct options.
 - A. 2
 - B. 4
 - C. 6
 - D. 8
 - E. 10

2. Jim's average score on 4 math tests was 80 out of a possible 100. If his scores on 2 of the tests were 65 and 70, what is the lowest that either of his other scores could have been?
 - A. 85
 - B. 90
 - C. 95
 - D. 105
 - E. 115

3. For a set of five whole numbers, the mean is 4, the mode is 1, and the median is 5. What are the five numbers? Write the correct answers: _____

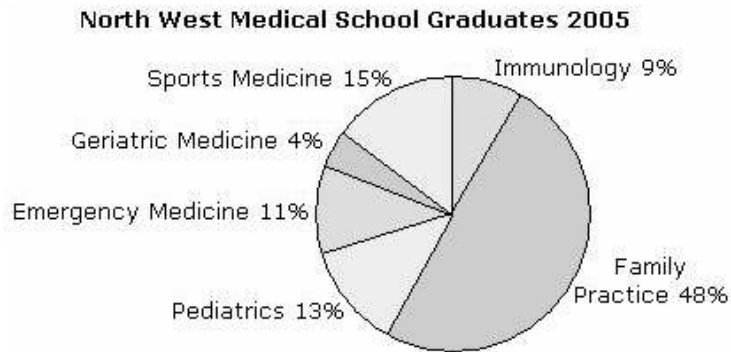
4. The average (arithmetic mean) of x and y is 30. If $z = 10$, what is the average of x , y , and z ?
 - A. $13 \frac{1}{3}$
 - B. $21 \frac{1}{4}$
 - C. $23 \frac{1}{3}$
 - D. $21 \frac{1}{3}$
 - E. $22 \frac{1}{4}$

5. A list of numbers has mean 7 & standard deviation 2.5. If x is a number in the list that is 2 standard deviation above the mean, then $x = ?$
 - A. 7
 - B. 8
 - C. 9
 - D. 10
 - E. 12

6. If the standard deviation of a set of numbers a, b, c is 's', then
 - column A: Standard deviation of set of numbers $a - 5, b - 5$ & $c - 5$
 - column B: $S - 5$
 - A. Column A's quantity is greater.
 - B. Column B's quantity is greater.
 - C. The quantities are the same.
 - D. The relationship cannot be determined from the information given.

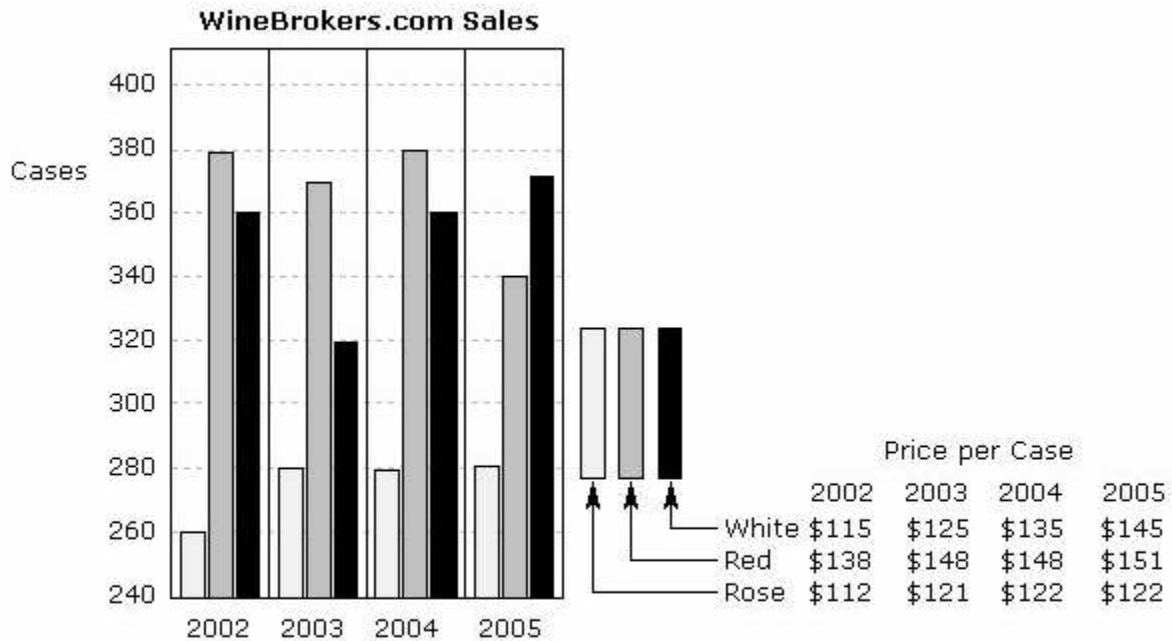
7. The third grade at the school A is made up of 600 students who have a total weight of 43,200 pounds. If the weight of these third graders has a normal distribution and the standard deviation is 12 pounds, approximately how many of the third graders weigh more than 84 pounds?
- A. 24.
 - B. 32
 - C. 96
 - D. 144
 - E. 168
8. There are these 8 numbers in a set 9.4, 9.9, 9.9, 9.9, 10.0, 10.2, 10.2, 10.5. The mean and standard deviation of the 8 numbers are 10.0 and 0.3 respectively, what percent of the 8 numbers are within 1 standard deviation of the mean?
- A. 90%
 - B. 85%
 - C. 80%
 - D. 75%
 - E. 70%
9. From January 3 to January 7, Stony Brook recorded the following daily high temperatures: 5° , 7° , 6° , 5° , 7° . Which statement about the temperatures is true?
- A. mean = median
 - B. mean = mode
 - C. median = mode
 - D. mean < median
 - E. median < mode

SECTION: II- DATA INTERPRETATION



The table above shows the specializations of North West Medical School graduates in 2005. Percentages have been rounded to the nearest whole number. One hundred and nineteen students graduated that year.

10. How many students decided to specialize in immunology?
- A. 15
 - B. 14
 - C. 11
 - D. 9
 - E. 7
11. What is the approximate ratio of students specializing in sports medicine, emergency medicine and family practice?
- A. 3:2:5
 - B. 2:8:10
 - C. 1:4:5
 - D. 6:4:10
 - E. 3:2:10
12. If the ratio of male to female students specializing in sports medicine is 2:1, how many female students does this represent?
- A. 6
 - B. 5
 - C. 18
 - D. 12
 - E. 10



The table above shows the annual sales of WineBrokers.com, a small online wine merchant.

13. What is the difference in the value of red wine sales between 2002 and 2003? (in dollars)

- A. 2280
- B. 3220
- C. 2330
- D. 2360
- E. 2320

14. If white wine increased in price by 10% from 2005 to 2006, what would be the approximate average cost per case over the five year period? (prices in dollars)

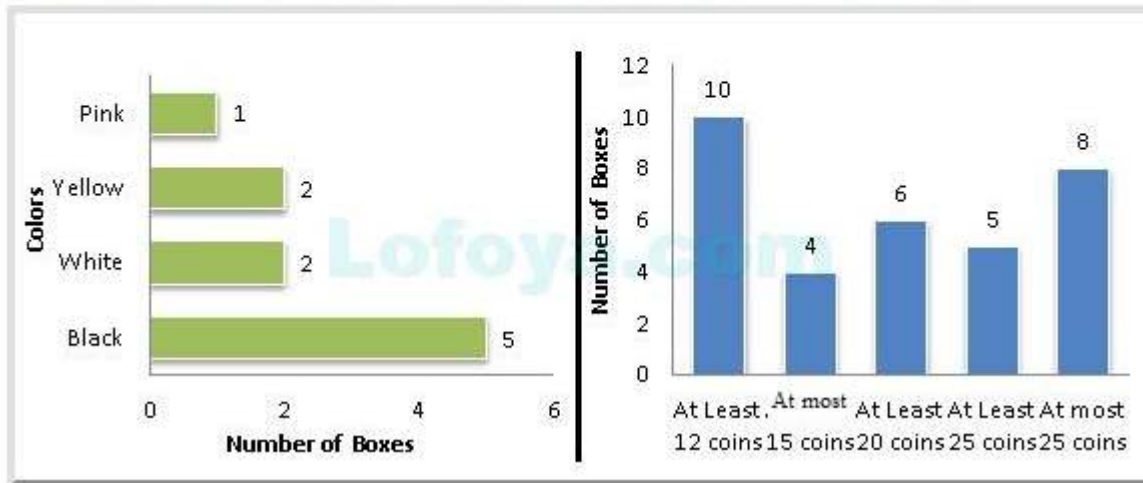
- A. 126
- B. 136
- C. 143
- D. 133
- E. 138

15. What percentage of total cases of wine sold over the four year period were rose?

- A. 26.3%
- B. 27.6%
- C. 26.6%
- D. 29.6%
- E. 23.6%

There are ten boxes namely Box 1, Box 2, Box 3,..... Box 9 and Box 10 with Mr. Zero. Each of these ten boxes is colored with one out of the four colors namely Black, White, Yellow and Pink. The number of coins in each of these mentioned ten boxes is one of the five numbers 12, 15, 20, 25 and 30. The following bar - graphs provides information about the number of boxes that are colored Black, White, Yellow and Pink and also about the number of boxes that have different number of coins.

No two boxes that are colored with the same color have equal number of coins.



16. The number of boxes that have exactly 20 coins is:

- A. 4
- B. 3
- C. 2
- D. 1
- E. CND

17. What is the total number of coins in all the boxes that are colored black?

- A. 102
- B. 92
- C. 105
- D. 95
- E. CND

18. The total number of coins in all the ten boxes with Mr. Zero is at most:

- A. 202
- B. 207
- C. 212
- D. 222
- E. 227

19. If the number of coins in the box that is colored pink is 30, then which of the following can be the total number of coins in all the boxes that are colored white?

- A. 45
- B. 37
- C. 42
- D. Both A and B
- E. A, B and C

20. If the total number of coins in the boxes that are colored yellow is the maximum possible and the total number coins in all the boxes is least, then what is the number of coins in the box that is colored pink?

- A. 25
- B. 30
- C. 15
- D. 12
- E. CND

The following line graph gives the annual percent profit earned by a Company during the period 1995 - 2000.

Percent Profit Earned by a Company Over the Years.

$$\% \text{Profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$



21. If the expenditures in 1996 and 1999 are equal, then the approximate ratio of the income in 1996 and 1999 respectively is?

- A. 1:1
- B. 2:3
- C. 13:14
- D. 9:10

22. If the income in 1998 was Rs. 264 crores, what was the expenditure in 1998?

- A. 105 cr
- B. 145 cr
- C. 160 cr
- D. 185 cr

23. What is the average profit earned for the given years?(options are mixed fractions)

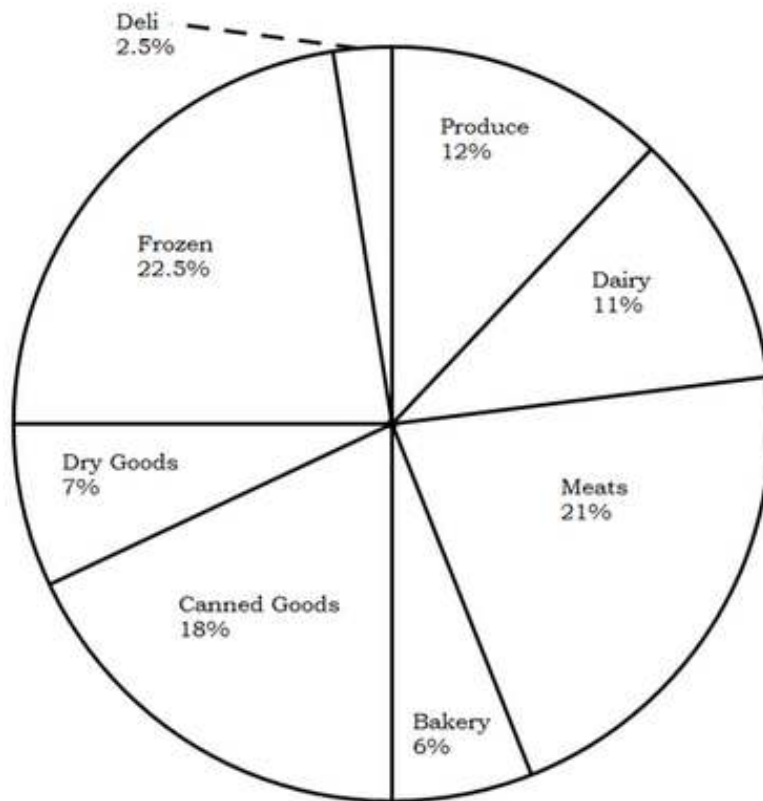
- A. $50\frac{2}{3}$
- B. $55\frac{5}{6}$
- C. $60\frac{1}{6}$
- D. 335

The following table shows the number of new employees added to different categories of employees in a company and also the number of employees from these categories who left the company every year since the foundation of the Company in 1995.

| Year | Managers | | Technicians | | Operators | | Accountants | | Peons | |
|------|----------|------|-------------|------|-----------|------|-------------|------|-------|------|
| | New | Left | New | Left | New | Left | New | Left | New | Left |
| 1995 | 760 | - | 1200 | - | 880 | - | 1160 | - | 820 | - |
| 1996 | 280 | 120 | 272 | 120 | 256 | 104 | 200 | 100 | 184 | 96 |
| 1997 | 179 | 92 | 240 | 128 | 240 | 120 | 224 | 104 | 152 | 88 |
| 1998 | 148 | 88 | 236 | 96 | 208 | 100 | 248 | 96 | 196 | 80 |
| 1999 | 160 | 72 | 256 | 100 | 192 | 112 | 272 | 88 | 224 | 120 |
| 2000 | 193 | 96 | 288 | 112 | 248 | 144 | 260 | 92 | 200 | 104 |

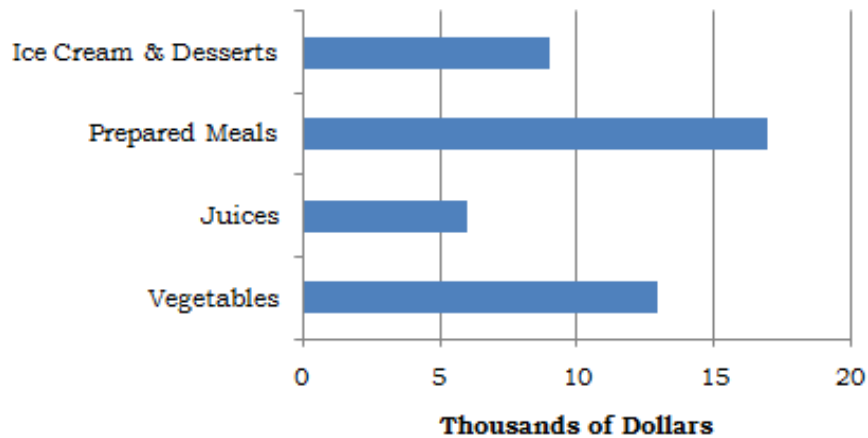
24. What is the difference between the total number of Technicians added to the Company and the total number of Accountants added to the Company during the years 1996 to 2000?
- 128
 - 112
 - 96
 - 88
25. What is the pooled average of the total number of employees of all categories in the year 1997?
- 1325
 - 1195
 - 1265
 - 1235
26. During the period between 1995 and 2000, the total number of Operators who left the Company is what percent of total number of Operators who joined the Company?
- 19%
 - 21%
 - 27%
 - 29%

The following pie chart shows the breakdown of revenues for a particular grocery store over the first quarter of this year. The bar chart shows the detail of breakdown for frozen foods.



Total revenue, first quarter, \$200,000

Sales of Frozen Foods, first quarter this year



27. What is the dollar amount of sales of canned goods in the first quarter of this year?

- A. \$6,000
- B. \$9,000
- C. \$18,000
- D. \$36,000
- E. \$90,000

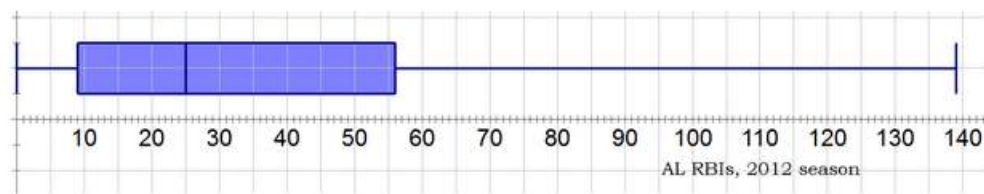
28. Frozen prepared meals constitute what percentage of the total sales for the first quarter this year?

- A. 2%
- B. 9%
- C. 20%
- D. 36%
- E. 54%

29. During the first quarter this year, this particular grocery store was finishing its construction of an expanded bakery facility, which, when opened at the beginning the second quarter, will offer dozens of new cakes and pies, a whole new line of pastries, and several flavors of gourmet coffee. Assume that in the second quarter, the bakery sales triple, and all other sale stay the same. Bakery would then account for what percentage of total sales in the second quarter?

- A. 8.7%
- B. 12%
- C. 16.1%
- D. 18%
- E. 25.3%

The following boxplot shows the 2012 season runs batted in (RBIs) of 280 American League batters (the top 280 batters in terms of number of plate appearances).



30. What is the size of the IQR of this distribution?

- A. 25
- B. 47
- C. 56
- D. 83
- E. 140

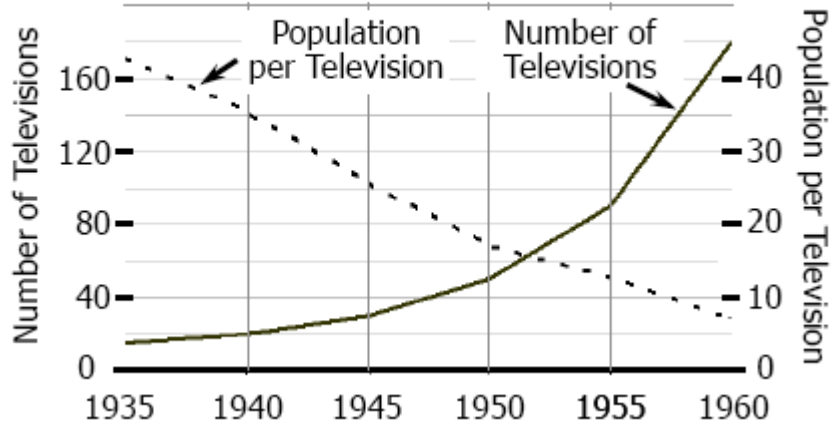
31. How many AL hitters hit more than 25 RBIs in 2012?

- A. 9
- B. 56
- C. 83
- D. 114
- E. 140

32. B. J. Upton of the Tampa Bay Rays hit 78 RBIs in 2012; this is the 90th percentile value on this chart. How many players hit between 56 and 78 RBIs?

- A. 14
- B. 22
- C. 28
- D. 34
- E. 42

TELEVISIONS IN TOWN X, AND POPULATION PER TELEVISION



33. What was the approximate population of Town X in 1945?

- A. 150
- B. 750
- C. 1500
- D. 3000
- E. 6000

RELATIVE SWEETNESS OF DIFFERENT SUBSTANCES

| | |
|-----------|--------|
| Lactose | 0.16 |
| Maltose | 0.32 |
| Glucose | 0.74 |
| Sucrose | 1.00 |
| Fructose | 1.70 |
| Saccharin | 675.00 |

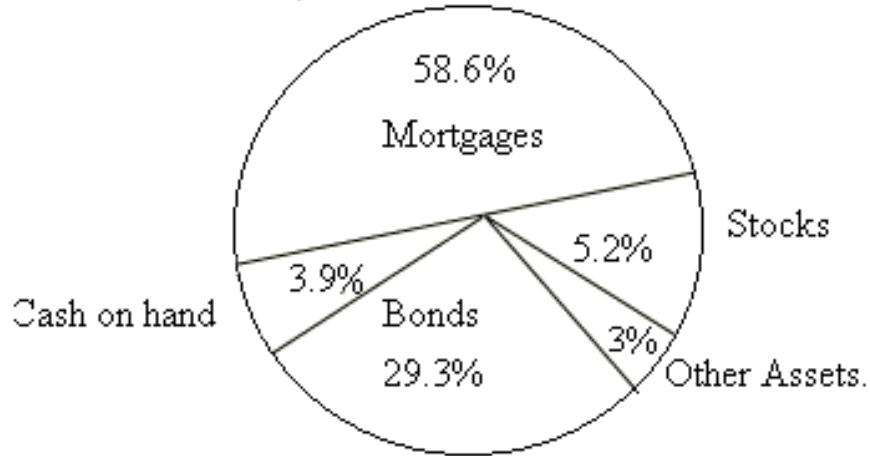
34. How many grams of sucrose (to the nearest gram) must be added to one gram of saccharin to make a mixture that will be 100 times as sweet as glucose?)

- A. 7
- B. 8
- C. 9
- D. 10
- E. 100

35. What is the ratio of glucose to lactose in a mixture as sweet as maltose

- A. 8 : 21
- B. 21 : 8
- C. 25 : 9
- D. 29 : 8
- E. 32 : 5

A SAVINGS BANK IN A LARGE CITY PUBLISHED THE FOLLOWING GRAPH FOR ITS DEPOSITORS, HOW YOUR SAVINGS WORK FOR YOU.



36. The average annual interest on mortgage investments is $m\%$ and the average annual interest on the bond investment is $b\%$. If the annual interest on bond investments is x dollars, how many dollars are invested in mortgages?

- A. xm/b .
- B. xb/m .
- C. $100xb/m$
- D. $bx/100m$.
- E. $200x/b$