



Choose the correct answer

- (1) Which display makes it easier to see the median?
 a Histogram b Box plot c Dot plot d Bar graph
- (2) All the following solutions of the inequality $x < -3$ except
 a -7 b -11 c -1 d -4
- (3) If the mode of the values 5, 2, 3, $x+1$ and 7 is 5, then $x =$ $2x+1=5, x=4$
 a 2 b 3 c 4 d 5
- (4) The LCM of 8 and 6 is
 a 12 b 16 c 24 d 48
- (5) $3\frac{1}{2} + 2\frac{1}{4} =$
 a $5\frac{1}{4}$ b $5\frac{1}{2}$ c $5\frac{3}{4}$ d $2\frac{2}{6}$
- (6) Which of the following is an algebraic expression?
 a $18 - 2 \times 7$ b $5 + 2 - 3$ c $3x + 3$ d $3(2 + 5)$
- (7) In the equation: $y = 3x - 1$, if $x = 2$, then $y =$
 a 2 b 3 c 5 d 6
- (8) The LCM of 3 and 6 is
 a 1 b 2 c 3 d 6
- (9) All the following represents numerical data ما عدد except
 a temperature b height c weight d favorite color
- (10) The = the greatest value - the smallest value.
 a median b mean c range d mode
- (11) The algebraic expression that represents "Add 7 to the number y " is
 a $y + 7$ b $y - 7$ c $y \times 7$ d $y \div 7$
- (12) The range of the values: 3, 5, 9 and 2 is ... $9 - 2 = 7$
 a 4 b 5 c 6 d 7
- (13) The is from the categorical data.
 a name b height c time d age
- (14) In the relation: $y = 3x + 5$, the dependent variable is
 a 3 b 5 c x d y
- (15) "A number is not less than 7" is written as
 a $x < 7$ b $x \leq 7$ c $x > 7$ d $x \geq 7$
- (16) Seven cubed added to 3.
 a $7^2 - 3$ b $7^3 + 3$ c $3^7 + 3$ d $3^7 - 3$



(17) From the opposite table, the range = $120 - 60 = 60$

min	Q1	median	Q3	max
60	75	95	105	120

- a 60 b 75 c 95 d 105

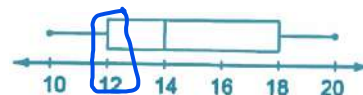
(18) $9(\dots + 1) = 18 + 9$

- a 1 b 2 c 3 d 7

(19) If $k + 3 = 8$, then $k - 2 = \dots$

- a 2 b 3 c 5 d 8

(20) Form the opposite figure, the difference between Q3 and Q1 is



- a 6 b 10 c 12 d 14

(21) Which of the following are relatively prime numbers?

- a 2 and 6 b 4 and 9 c 4 and 8 d 10 and 15

(22) The opposite of the number (-7) is

- a -7 b 0 c $|-7|$ d 70

(23) is a factor of all numbers.

- a 0 b 1 c 2 d 3

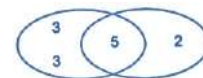
(24) The smallest natural number is

- a 0 b 1 c -1 d $|-1|$

(25) $-3 \dots -5$

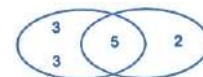
- a $<$ b $>$ c $=$ d otherwise

(26) From the opposite Venn diagram, the GCF =



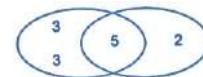
- a 2 b 3 c 5 d 9

(27) From the opposite Venn diagram, the LCM =



- a 5 b 9 c 10 d 90

(28) The expression that represents the opposite Venn diagram is



- a $5(9 + 2)$ b $9(5 + 2)$ c $5(6 + 2)$ d $2(5 + 9)$

(29) The shape that shows individual data

- a histogram b dot plot c box plot d intervals

(30) The outlier of the data set: 101, 103, 105, 900 and 104 is

- a 101 b 103 c 105 d 900

(31) The median of the data set: 3, 7, 2, 9, 5 and 11 is $3, 5, 7, 9, 11$

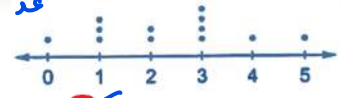
- a 2 b 11 c 6 d 7

$$\frac{5 + 7}{2}$$



(32) How many people were surveyed?

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- a 0
- b 5
- c 3
- d 12

(33) The shape that has no gaps between bars is

- a histogram
- b dot plot
- c box plot
- d bar graph

(34) The number comes just after -3

- a -4
- b -5
- c -7
- d -2

(35) The number 90 is not divisible by

- a 3
- b 4
- c 5
- d 6

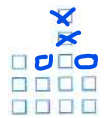
(36) The number $-2\frac{1}{4}$ in the form $\frac{a}{b}$ is $-\frac{9}{4}$

- a $-\frac{7}{4}$
- b $\frac{7}{4}$
- c $-\frac{9}{4}$
- d $\frac{9}{4}$

(37) $\frac{3}{5} - \frac{1}{2} = \dots \frac{6}{10} - \frac{5}{10}$

- a $\frac{2}{3}$
- b $\frac{1}{5}$
- c $\frac{1}{10}$
- d $\frac{4}{7}$

(38) The mean of the values in the opposite figure is



- a 2
- b 3
- c 4
- d 5



Essay Problems

Using the following box plot, complete:



- (1) (a) The minimum value is ...0.... (d) The upper quartile (Q3) is $4\frac{1}{2}$
- (b) The median is ...3.... (e) The maximum value is ...6....
- (c) The lower quartile (Q1) is ...1.... (f) The range = $6 - 0 = 6$

(2) Find the value of: $\frac{1}{2} - \frac{1}{3} = \frac{3}{6} - \frac{2}{6} = \frac{1}{6}$

(3) Ali wants to divide 254 kg of apples in 3 boxes. Is it possible? Why?
No, because 254 is not divisible by 3

Solve the following equations:

- (4) (a) $4x = 12$ (b) $y - 2 = 18$ (c) $y + 3 = 13.5$
- $x = 12 \div 4 = 3$ $y = 18 + 2$ $y = 13.5 - 3$
- $= 20$ $y = 10.5$



(5) Arrange in an ascending order: $3.4, -2\frac{1}{2}, 0, -4\frac{3}{7}, 3\frac{1}{4}$

The order is: $-4\frac{3}{7}, -2\frac{1}{2}, 0, 3\frac{1}{4}, 3.4$

(6) Evaluate the expression: $14 \div n + 5^2$ at $n = 2$

$14 \div 2 + 5^2 = 7 + 25 = 32$

(7) From the data set: ~~3~~, 7, 6, ~~2~~, 5, ~~1~~ and ~~4~~, find the following, then draw the box plot.

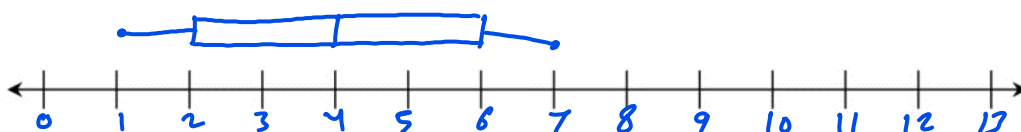
The maximum value = 7... Q1 = 2... Q3 = 6...

The minimum value = 1... The median = 4...

$1, 2, 3, 4, 5, 6, 7$
 $\frac{7+6+5+4+3+2+1}{7} = \frac{28}{7}$

The mean = 4...

The range = $7 - 1 = 6$



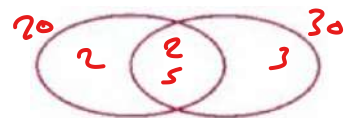
(8) If the median of $(k+1, k+2, k+3)$ is 15, find the value of k. $k+2=15$

$k=13$

(9) Find the GCF and the LCM of 20 and 30

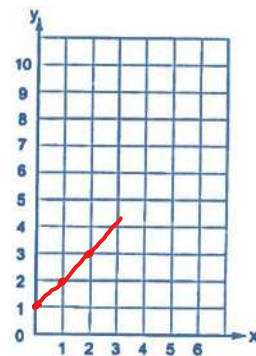
G.C.F. = $2 \times 5 = 10$

L.C.M. = $2 \times 2 \times 5 \times 3 = 60$



(10) Complete the following table using the relation $(y = x + 1)$ and represent it graphically.

x	0	1	2
y	1	2	3
(x,y)	(0,1)	(1,2)	(2,3)



(11) Using the opposite histogram, complete the table, then complete the missed bars.

Intervals	Frequency
0 - 19	3
20 - 39	5
40 - 59	7
60 - 79	9
80 - 99	8

