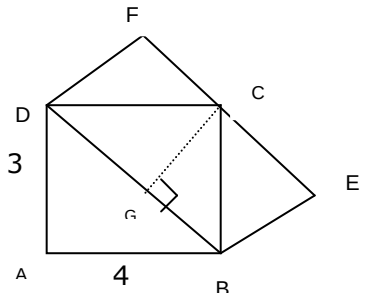
DELHI PUBLIC SCHOOL, JAMMU

Revision Sheet For Final Examination

Session (2017-18)

CLASS VIII **SUBJECT: MATHS**

1. The classes 10-19, 20-29, 30-39 are
   (a) Continuous (b) discontinuous
   (c) insufficient data (d) ungrouped data
2. The average of lower class limit and upper class limit is called-
   (a) size (b) data (c) class mark (d) class interval
3. Sugar is bought at Rs 40 per kg and sold at Rs 52 per kg. The gain % is
   (a) 20% (b) 25% (c) 30% (d) 15%
4. The factors of $y^2 + 2 + \frac{1}{y^2}$ are-
   (a) $(y-\frac{1}{y})^2$ (b) $(y+\frac{1}{y}-1)^2$ (c) $(y+\frac{1}{y})^2$ (d) $(y+\frac{1}{y}+1)^2$
5. Two rectangles ABCD & DBEF are as shown in fig. The area of rectangle DBEF in sq. units is –
   (a) 12
   (b) 15
   (c) 14
   (d) 10



6. The value of x + x (x^x) when x = 2 is –
   (a) 16 (b) 10 (c) 18 (d) 36

7. The solution of $\sqrt{1^3 + 2^3 + 3^3}$ is -
   (a) 5 (b) 6 (c) 7 (d) 8

8. A car travels 432 Km with 48 litres of petrol. How far will it travel with 20 litres of petrol?
   (a) 160 Km (b) 170 Km (c) 180 Km (d) 120 Km

9. The Blood Groups of 30 students of a class are recorded as follows:

A	AB	O	O	A	B	B	AB	A	O
A	B	AB	AB	O	A	B	B	A	A
A	B	AB	O	O	A	B	AB	B	A

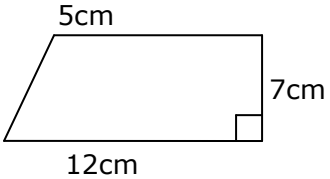
   Make a frequency distribution for this data.

10. A sofa set is marked at Rs 5080.Due to diwali festival it is sold for Rs 4318. Find the discount percent allowed on it.

11. In how many years will 4000 amount to 5324 at 10% p.a. compounded annually.

12. Evaluate using Identities:-
   (a) $\frac{298\times298 - 202\times202}{96}$ (b) $\frac{(4.35)^2 - (0.35)^2}{4}$

13. Find the area of the trapezium given here.



14. The metal cubes of sides 5cm, 4cm & 3cm respectively are melted and recast into a new cube. Find edge of new cube so formed.

15. The volume of a cylinder is 660cm^3. Find its height if its radius is 5cm.

16. Simplify:-
    (a) $(4^2 \times 5^{-2})\ (4^2 \div 5^{-2})$
    (b) $(\frac{4}{5})^6 \times (\frac{4}{5})^3 \div (\frac{4}{5})^9$

17. One gas cylinder is used to cook for a family of 8 people for 30 days. If 4 guests join the family, how long will the cylinder last ?

18. Plot the points (-5, 2), (-8, 2), (-3.5, 2), (0,2), (4,2), (8,2)
    (a) What do you observe about the ordinates of all six points?
    (b) Join all these points using a scale. What do you observe. The line so obtained is parallel to which axis ?

19. Factorize the following:-
    (a) $6xy - 4y + 6 - 9x$
    (b) $(p^2 - 4p + 4) - 81$
    (c) $25x^2 + 4y^2 + 20xy$
    (d) $x^2 - 25$
    (e) $\frac{16}{81}m^2 - 121$

20. The distances thrown by competitors in a distance throw event are given below. Draw a histogram for this table.

Distance in (m)	Frequency
25 – 30	5
30 – 35	8
35 – 40	17
40 – 45	10
45 – 50	9
50 – 55	5

21. After allowing a discount of 16% there was still a gain of 5%. At what % above the cost price was the marked price ?
22. Calculate the amount and C.I. if the interest is compounded half-yearly for principal 4000 at 10% p.a. for 1½ year.
23. Factorize using splitting middle term:-
    (a) $x^2 - 14x + 13$ (b) $p^2 + p - 132$
    (c) $12a^2 + 28a - 5$ (d) $3x^2 - 10x + 8$
24. Expand using Identities--
    (a) $(x^2 + 4)^2$ (b) $(2x - 1)^2$
    (c) $(x^2 - y^2)^2$ (d) $(p-½)^2$
25. How many bricks will be required to build a wall 8m long 6m high and 22.5cm thick. If each brick measures 25cm × 11.25 cm by 6 cm ?
26. By what number should $(\frac{2}{3})^{-2}$ be multiplied so that the product is $(\frac{4}{27})^{-1}$?
27. Ajay and Binoy together can paint a wall in 8 days. Ajay alone can paint it in 12 days. How long will Binoy take to paint the wall all by himself?
28. Factorise :- (a) $a^4b^4-c^4$ (b) $16x^2 - (5y + 7)^2$
29. Using Identity factorize :- (a) $(61)^2 - (39)^2$ (b) $(215)^2 - (205)^2$
30. The main source of energy used by each house in a street is listed blow

Source of energy	No. of houses
Electricity	20
Solar	10
Gas	12
Oil	06

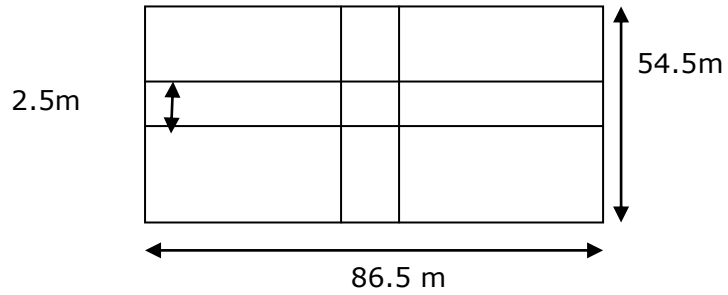
Represent the above data by pie chart.

31. What single discount is equivalent to two successive discounts of 30% and 10%.

32. Find the amount and C.I., if the interest is compounded quarterly.
P = 8,000 R = 16% p.a. T = 9 months

33. Simplify :-
(a) $(x+2y)\,(1+3x+4y) - 6y(x+y)$
(b) $(2x^2 + x - 1) - (3 + 2x - x^2)$
(c) $3xy^2 \times 2x^2y^2 \times (-4x^3y)$ and verify the result for x=1, y=2

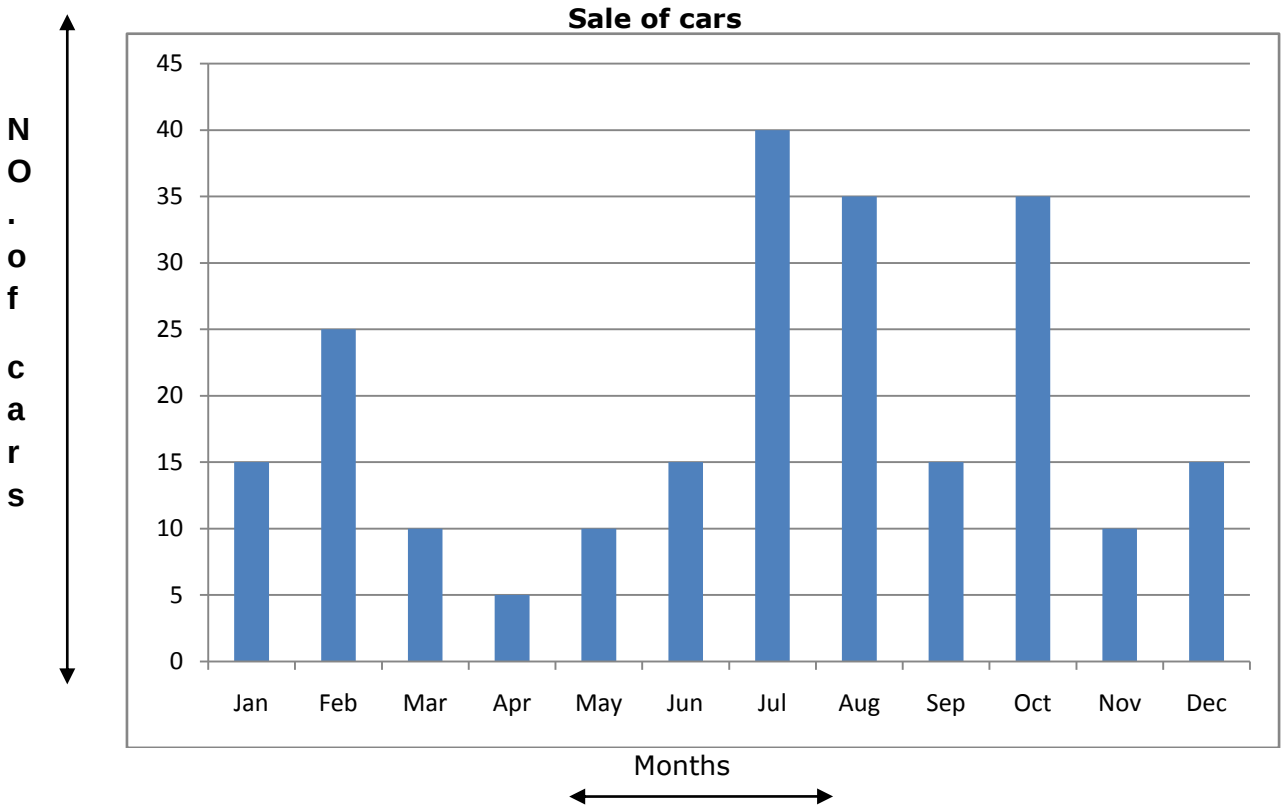
34. A rectangular lawn 86.5m by 54.5m is constructed. Two paths each 2.5m wide, are cut across the middle || to the width and the other || to the length as shown in the following figure. Find the area of the path and cost of leveling one corner portion at Rs.1.50 per sq m.



35. Simplify:-
(a) $(a^3 \times a^2)^2$ (b) $\dfrac{4^3 \times a^5 \times b^4}{4^2 \times a^2 \times b^3}$

36. A train travels a distance of 540 Km in 9 hours. How much time will this train take to travel 330 km?

37. Look at the bar graph and answer the questions that follow:



1. What information does the graph represent
2. In which month was the scale of cars the lowest ?
3. In which month was the scale of cars the highest ?
4. In which month were only 15 cars sold ?
5. How many cars were sold in the last quarter of the year ?