

**Class 10**  
**Sample Paper**

***Moneylender***

***(Personal)***

Q. Reema has to run her family after her husband's death. She wants to grow organic vegetables on a piece of land of dimensions 40 feet X 26 feet and cost is ₹50 per square feet for irrigation of land. She has only ₹ 27000. She is left with two options :

- i. Can borrow money from the moneylender who lends the money at 32% per annum interest.
- ii. Can borrow money from any bank which lends the money at 12.5% per annum interest.

1. In which case, she has to pay less amount and by how much.

- (a) ₹ 4875 in Case 2
- (b) ₹ 1985 in Case 1
- (c) ₹ 23125 in Case 2
- (d) ₹ 28125 in Case 1

***Indian Age Composition Data***

***(Societal)***

Following data shows the percentage of adults and dependents (aged and children)  
On basis of this information answer the following questions .

Adults	58.7%
Aged	6.9%
Children	34.4%

2. Approximately one third of the age structure is represented by which group of people.

- (a) Aged
- (b) Children
- (c) Adults
- (d) None

3. What is the dependency ratio approximately?

- (a) More than 42%
- (b) Less than 42%
- (c) Equal to 42 %
- (d) None

## Test Your Observation.

(Educational)

4. In the following question, two quantities appear, one in Column A and the other in Column B. Compare and give the correct option:-

Column A	Column B
The average of all positive multiples of 7 less than 26	The average of all the positive multiples of 5 less than 26

- (a) the quantity in column A is greater
- (b) the quantity in column B is greater
- (c) the two quantities are equal
- (d) it is impossible to determine which quantity is greater

5. Scava secures 97, 73 and 88 in first, second and third examination respectively. If she secures 80 in the fourth examination, then her average score will be

- a) Increased by 1.5
- b) decreased by 1.5
- c) increased by 80
- d) No change

## Class 12 CBSE Results

(Educational)

Q. The following question is based on the given data for an examination

A	Candidates appeared	10500
B	Candidates passed in all subjects	5685
C	Passed in 3 subjects	1498
D	Passed in 2 subjects	1250
E	Passed in 1 subject	835
F	Failed in English	78
G	Failed in Maths	275
H	Failed in Physics	149
I	Failed in Chemistry only	147
J	Failed in Biology only	221

6. How many candidates passed in at least four subjects?

- (a) 6555
- (b) 5685
- (c) 1705
- (d) 870

### *Biggest Extravaganza.*

*(Societal)*

7. The Indian team for the upcoming ICC Cricket World Cup 2019 was announced. The selection committee sent the best players for the biggest cricket extravaganza

Here is a detailed look at the profile of the four players:-

Name of the player	Matches	Runs	100's	50's
Shikhar Dhawan	128	5355	16	27
Rohit Sharma	206	8010	22	41
Virat Kohli	227	10843	41	49
K L Rahul	14	343	1	2

Obtain a batting line of the best openers for the team in their decreasing order of average calculated by runs scored/ matches played .

### *Registration Of Students*

*(Educational)*

8. The University of Wales, South Australia registers students for three skill-based programmes – Hand in paint, Financial Know How and Science Structuring in the ratio 4:7:9. In 1999, due to an open immigration, it has seen an increase in the percentage of students in these courses as per the following data :

HAIND IN PAINT – 30%

FINANCIAL KNOW HOW – 20 %

SCIENCE STRUCTURING – 40%



Work out a mathematical logical explanation to find out the new ratio to be fixed by the university for the current registration i.e. new term which is beginning in September, 1999.

*Much Awaited Sale Is Here !!!*

*(Occupational)*

9. These are top two brands offering attractive Offers this season .

SHOP – A
50% + 60% OF RUPEES 4700
SHOP – B
70% OF RUPEES 4700



Which is a better deal? Explain.

*Make Your Choice*

*(Personal)*

Q. Romi is a student. He is allowed to watch TV at the most for an hour between 7:30 p.m. and 10 :00 p.m. He checked for the two programmes between 7:30 p.m. and 10 p.m. on different channels and made the list of his favorite shows along with their timings.

TIME	PROGRAMME	DURATION
7:30 P.M	Americas Funniest Videos	30 minutes
7:30 P.M	Big Bang Theory	30 minutes
8:30 P.M	Tom and Jerry	1 hour
9:00 P.M	Blue Planet	30 minutes
10:00 P.M	Friends	1 hour

10. Romi wants to watch two programmes. Which two programmes can he watch completely.

11. Romi has to take dinner at 9 p.m because of which he has to miss Blue Planet . What options are left for him now?

*Number Error*

*(Scientific)*

12. Aarti has forgotten the last digit of the personal identification number of her ATM card. She remembers that the PIN is divisible by 6. The first 3 digits of the PIN are :

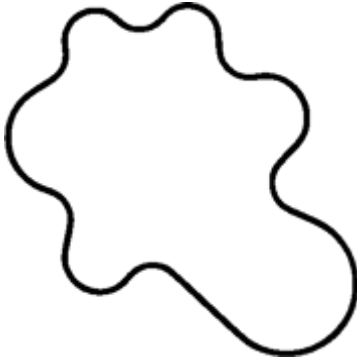
8	6	3	?
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## Shapes

## (Scientific)

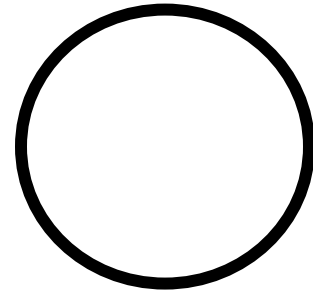
A child while painting dropped a blob of paint on the floor. It spreads into the following three shapes



(a)



(b)



(c)

13. Which of these figures has the maximum surface area of paint spread? Explain your reasoning.

14. How can you estimate the area of figure (a)

## Remiance Ltd.

## (Occupational)

Following is the statistical data of 5 years crosscutting and finances of company spent on its employees .

YEAR	SALARY	FUEL AND TRANSPORT	BONUS	INTEREST ON LOANS	TAXES
1998	288	98	3.00	23.4	83
1999	342	112	2.52	32.5	108
2000	324	101	3.84	41.6	74
2001	336	133	3.68	36.4	88
2002	420	142	3.96	49.4	98

15. What is the average amount of interest per year which the company had to pay during this period?

## Answer Key

1. Area of land =  $40 \times 26$   
Total cost =  $1040 \times 50 = 52000$   
Money she needs =  $52000 - 27000 = 25000$   
Case 1 - interest =  $32\%$  of  $25000 = 8000$  p.a  
Case 2 - interest =  $12.5\%$  of  $25000 = 3125$   
Answer - option a  
Case 2 4875
2. Option B children
3. Option B less than  $42\%$  ( $34.4 + 6.9$ )
4. Column A =  $7+14+21 / 3 = 14$   
Column B =  $5 + 10 +15 +20 +25 / 5 = 15$   
Option B quantity B is greater
5. Av 1 =  $97+73+88 / 3 = 86$   
Av2 =  $97+73+88+80/4 = 84.5$   
Difference =  $86-84.5 = 1.5$
6. Candidates passed in each subject + passed in all subjects =  
 $78+275+149+147+221+5685=6555$
7. Virat Kohli , Shikhar Dhawan , Rohit Sharma , K L Rahul  
Av of Shikhar Dhawan =  $5355/128 = 41.8$   
Av of Rohit Sharma =  $8010 / 206= 38.8$   
Av of Virat Kohli =  $10843 / 227$   
Av of KL Rahul =  $343 / 14 = 24.5$
8. New ratio =  $4x + 30 . 4x / 100 : 7x + 20 . 7x /100 : 9x + 9x . 40 / 100$   
 $= 4x13 : 7x12 : 9x 14$   
 $= 26 : 42:63$
9. SHOP A :  
M.P = 4700 , Discount = 1410.5    S.P = 3289.5  
Shop B :  
M.P = 4700 , Discount = 3290 , S.P = 1414  
ANSWER = SHOP B
10. (a) Americas funniest videos and Blue Planet  
(b) Blue Planet and Big Bang  
(c) Blue Planet
11. Americas funniest videos or Big Bang Theory
12. 4
13. Figure C because it has no indents
14. by taking a graph paper and counting number of squares , taking half squares and more than half squares and ignoring less than half squares .
- 15 .  $23.4+32.5+41.6+36.4+49.40/50= 36.66$