

# पु•ना International School Shree Swaminarayan Gurukul, Zundal

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	Graue – 5 Svllabus – CH -	-1.2.3.467	5L F	ROM TEXTROOK
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Section 1. Mult	– A iple choice que	stion –		
1) The	e number before	43,65,000 is		
a)	43,68,999	b) 43,69,090	c) 43,69,009	d) <b>43,64,999</b>
2) Ty	wo more than or	he hundred lakh is		
a)	1,00,00,010	b) <b>100,00,002</b>	c) 11,00,000	d) 1,00,001
3) Te	en lakhs in the in	nternational system is	s written as	
a)	10,00,000	b) 10,000,00	c) <u>1,000,000</u>	d) 10,00,000
4) Tv	wo more than 99	9, 99, 999 is?		
a)	1000001	b) <b>1,00,00,001</b>	c) 99,999	d) 9,99,999
5) Pl	ace value of 7 in	n 7,98,365 is		
a)	78,00,000	b) <u>7,00,000</u>	c) 70,00,000	d) 70,300
6) 11	ne predecessor o	of ten millions is		1) 00 000 000
a) 7) T	999,999	b) <u>9,999,999</u>	c) 99,999	a) 99,999,999
/) It		$\frac{11110111100}{100000000}$	a) 1 000 000 (	
a)	<u>IU,000,000</u>	D 1,00,000,00	c) 1,000,000,0	0 0) 100,000,0
8) W	nie me missing	h) 100	400,	d) 100
(a)	200 Trite the first cor	0) 100	c)230	u) 100
9) W	file the first cor	b) 3		d) (
a) 10) 10	0 0 0 is the greate	of 5	C) 8	u) +
10) I ( a)	True	h) False		
a) 11) O	ne more than 99	99 999 is?		
h)	100000	b) <b>1 00 00 000</b>	c) 99 999	000 00 00 0 (h
12) TI	number after	90 71 308 is	())),)))	u)
b)	90.71.309	b) 92.69.309	c) 91.72.309	d) 93.71.309
13) M	ake smallest 6 d	ligit number using di	gits 6, 5, 9, 2, 4, 3?	
a)	682014	b) 25809	c) 25794	d) 234569
14) W	rite the second	multiples of 18?	,	10
a)	54	b) <b>36</b>	c) 18	d) 72
15) O	ne – third of a st	raight angle?		
a)	60	b) 20	c) 90	d) 45
16) N	umbers which a	re divisible by 2 are o	called?	
a)	Prime number	b) composite nu	mber c) odd nun	nber d) even number
17) W	rite the first mu	ltiples of 6?		
b)	1	b) 3 c) <b>6</b>	d) 9	
18) Tł	ne perimeter is t	he distance around th	eof a shap	e.
a)	Corner	b) <b>edge</b> c) si	des d) vertice	
19) Tł	neis the	amount of surface co	overed by a shape.	
a)	Rectangle	b) Perimeter c) A	<b>rea</b> d) Triangle	
20) A	group of fish is	called		

a) Herd
b) bundle
c) School
d) Foal
21) Make smallest 7 digit number using digits 8, 5, 9, 2, 6, 4, 3?
b) 2345698
b) 2346589
c) 2435689
d) 2345689
22) There are \_\_\_\_\_ types of angles.
a) Six
b) three
c) four
d) Five

#### Q 2 Fill in the blanks.

- 1) 25 paise is  $\frac{1}{4}$  part of one rupee.
- 2) 25 minutes is 5/12 part of one hour.
- 3) 12 hours is  $\frac{1}{2}$  part of one day.
- 4) 8 months is 2/3 part of one year.
- 5) 7 months is 7/12 part of one year.
- 6)  $\frac{1}{4}$  of Rs.1 = <u>25</u> Paise.
- 7) 1/3 of Rs. 150 = Rs <u>50</u>
- 8) 50 seconds = 5/6 of a minute.
- 9) 1/7 of 2100 g = 3/10 of 1 kg.
- 10) **<u>One third</u>** of a right angle =  $30^{\circ}$ .
- 11) 18 hours is <u>3/4</u> part of one day.
- 12) **<u>Two times</u>** of a right angle =  $180^{\circ}$ .
- 13) <u>Ten Lakhs</u> is the same as ten thousand hundred.
- 14) Area is measured in **Square** units.
- 15) 3 times of a right angle =  $\underline{270}$ .
- 16) <u>20</u> Paise is 2/5 of a rupee.
- 17) <u>3</u> is the smallest odd prime number.
- $18) \underline{65} + 42 + \underline{80} = 65 + \underline{42} + 80$
- 19) One seventh of a collection of 28 kites is <u>4kites</u>.
- 20) <u>2</u> is the only even prime number.
- $21) \underline{\mathbf{615}} + 402 + \underline{\mathbf{180}} = 615 + \underline{\mathbf{402}} + 180$
- 22) 200+ <u>400</u> + 300 = <u>200</u> + 400+ <u>300</u>.
- 23) A number that has more than 2 factors is called a <u>composite</u> number.

## Section B

#### Q3. Define –

- a) Angle An angle is a figure formed by two rays meeting at a common end point.
- b) Acute Angle An angle whose measure is less than 90° is known as acute angle. For example: 60°.
- c) Obtuse Angle An angle whose measure is more than  $90^{\circ}$  and less than  $180^{\circ}$

is known as obtuse angle. For example: 120°.

d) Straight Angle - An angle whose measure is exactly 180° is known as straight angle.

- e) Complete Angle An angle whose measure is exactly 360° is known as complete angle.
- f) Reflex Angle An angle whose measure is more than 180° and less than 360° is known as reflex angle. For eg 225°.
- g) Like fraction Fractions having the same denominators are called like fractions. Example -  $\frac{1}{15}$ ,  $\frac{3}{15}$
- h) Unlike fraction Fractions having different denominators are called unlike fractions. Example -  $\frac{3}{17}$ ,  $\frac{10}{14}$
- i) Proper fraction A fraction whose numerator is less than the denominator is called a proper fraction.

Example= $\frac{1}{5}, \frac{2}{7}$ 

 j) Improper Fraction – A fraction whose numerator is either equal to or greater than the denominator, is called an improper fraction.

Example  $=\frac{5}{2}, \frac{7}{3}$ 

k) Mixed fraction – A combination of a whole number and a proper fraction is called mixed fraction.

Example = 
$$2\frac{1}{2}$$
,  $7\frac{4}{15}$ 

Q4. Make Factor tree:

Example - 48



48

- d) 72
- e) 225
- f) 45
- g) 180
- h) 48

## Q5. Find the highest common factor:

Example - 10, 15 and 55

2	10	3	15	5	55
5	5	5	5	11	11
	1		1		1

- $10 = 2 \times 5$   $15 = 3 \times 5$   $55 = 5 \times 11$ H.C.F. = 5 Thus, H.C.F. of 10, 15 and 55 is 5. a) 25 and 35 b) 360 and 540 c) 200, 120 and 240 d) 35, 105 and 140 e) 210 and 480 f) 180 and 270 g) 120 and 150 h) 210, 150 and 120
- h) 210, 150 and 120
- i) 40, 50 and 75

Q6. Find the lowest common multiple:

Example - 6, 8 and 12.

2	6,	8,	12
2	3,	4,	6
2	3,	2,	3
3	3,	1,	3
	1,	1,	1

L.C.M =  $2 \times 2 \times 2 \times 3$ Thus, L.C.M of 6, 8 and 12 is 24.

- a) 48 and 60
- b) 27 and 36
- c) 24 and 30
- d) 18 and 54
- e) 24 and 32
- f) 72 and 60
- g) 60 and 282
- h) 102, 119 and 153
- i) 36, 48 and 72

## Q7. Do as directed:

A. Subraction of fraction a)  $\frac{15}{4} - \frac{12}{5}$ Lcm of 4 and 5 is  $4 \ge 5 = 20$  $=\frac{15\,x\,5}{4\,x\,5}-\frac{12\,x\,4}{5\,x\,4}$  $=\frac{75}{20} - \frac{48}{20} = \frac{75 + 48}{20} = \frac{123}{20}$ b)  $\frac{9}{2} - 1$  $=\frac{9}{2}-\frac{1}{1}$ Lcm of 2 and 1 is = 2 $=\frac{9 x 1}{2 x 1} - \frac{1 x 2}{1 x 2} = \frac{9 - 2}{2} = \frac{7}{2}$ c)  $\frac{13}{7} - \frac{9}{6}$  $=\frac{13}{7}-\frac{9}{6}$ Lcm of 7 and 6 is 42  $=\frac{13 x 6}{7 x 6} - \frac{9 x 7}{6 x 7} = \frac{78 - 63}{42} = \frac{15}{42}$ d)  $\frac{52}{10} - \frac{49}{16}$  $=\frac{52}{10}-\frac{49}{16}$ Lcm of 10 and 16 is = 80  $=\frac{52\ x\ 8}{10\ x\ 8}-\frac{49\ x\ 5}{16\ x\ 5}$  $=\frac{416}{80}-\frac{245}{80}=\frac{416-245}{80}$  $=\frac{171}{80}$ e)  $\frac{27}{10} - \frac{13}{5}$ f)  $\frac{8}{2} - \frac{9}{11}$ **B.** Multiplication of fraction a)  $\frac{3}{5} \times \frac{4}{6}$ 

 $= \frac{3 \times 4}{5 \times 6} = \frac{12}{30}$ b)  $1 \times \frac{7}{4}$  $= \frac{1}{1} \times \frac{7}{4} = \frac{1 \times 7}{1 \times 4} = \frac{7}{4}$ c)  $\frac{8}{3} \times \frac{7}{4}$  $= \frac{8 \times 7}{3 \times 4} = \frac{56}{12}$ d)  $\frac{15}{4} \times \frac{2}{7}$  $= \frac{15 \times 2}{4 \times 7} = \frac{30}{14}$ e)  $\frac{20}{6} \times \frac{10}{6} = \frac{20 \times 10}{6 \times 6} = \frac{200}{36}$ f)  $\frac{5}{3} \times \frac{4}{7}$ g)  $\frac{15}{4} \times \frac{2}{7}$ h)  $\frac{12}{5} \times \frac{6}{7}$ i)  $\frac{16}{5} \times \frac{39}{64}$ j)  $\frac{3}{5} \times \frac{20}{9}$ 

## C. Check fraction are equivalent or not.

a)  $\frac{7}{14}$  and  $\frac{5}{10}$ 

**Solution** -  $7 \times 10 = 5 \times 14$  (cross multiplication) 70 = 70

Yes, it is an equivalent fraction.

b)  $\frac{5}{55}$  and  $\frac{11}{121}$ 

Solution -  $5 \times 121 = 55 \times 11$  (cross multiplication) 605 = 605Yes, it is an equivalent fraction.

c)  $\frac{8}{13}$  and  $\frac{6}{11}$ 

Solution -  $8 \times 11 = 13 \times 6$  (cross multiplication) 88 = 78No, it is not an equivalent fraction.

d)  $\frac{10}{14}$  and  $\frac{25}{35}$ e)  $\frac{5}{9}$  and  $\frac{13}{9}$  f)  $\frac{10}{14}$  and  $\frac{15}{21}$ g)  $\frac{3}{5}$  and  $\frac{15}{30}$ h)  $\frac{9}{12}$  and  $\frac{15}{20}$ 

## **D.** Addition of fraction -

a)  $\frac{4}{5} + \frac{3}{7}$ Lcm of 5 and 7 is 35  $=\frac{4x7}{5x7}+\frac{3x5}{7x5}$  $=\frac{28}{35}+\frac{15}{35}$  $=\frac{28+15}{35}=\frac{43}{35}$ b)  $\frac{5}{8} + \frac{1}{2}$ Lcm of 2 and 8 is = 8 $=\frac{5 x 1}{8 x 1} + \frac{1 x 4}{2 x 4}$  $=\frac{5}{8}+\frac{4}{8}$  $=\frac{5+4}{8}=\frac{9}{8}$ c)  $\frac{3}{5} + \frac{1}{8}$ Lcm of 5 and 8 is = 40 $=\frac{3 x 8}{5 x 8}+\frac{1 x 5}{8 x 5}$  $=\frac{24+5}{40}=\frac{29}{40}$ d)  $\frac{7}{4} + \frac{6}{6}$ Lcm of 4 and 6  $=\frac{7 x 3}{4 x 3}+\frac{6 x 2}{6 x 2}$  $=\frac{21}{12}+\frac{12}{12}$  $=\frac{21+12}{12}=\frac{33}{12}$ e)  $1 + \frac{9}{6}$  $=\frac{1}{1}+\frac{9}{6}$ Lcm of 1 and 6 is = 6

$$= \frac{1 \times 6 + 9 \times 1}{6} = \frac{6 + 9}{6} = \frac{17}{6}$$
  
f)  $\frac{54}{49} + \frac{20}{7}$   
 $= \frac{54}{49} + \frac{20}{7}$   
Lcm of 49 and 7 is = 49  
 $= \frac{54 \times 1}{49 \times 1} + \frac{20 \times 7}{7 \times 7}$   
 $= \frac{54}{49} + \frac{140}{49}$   
 $= \frac{54 + 140}{49} = \frac{194}{49}$   
g)  $\frac{9}{12} + \frac{3}{4}$   
h)  $\frac{14}{6} + \frac{15}{8}$ 

# Q8. Draw angle using protector:

Copy this video to get more information - (https://youtu.be/zq\_QUJWpXgQ)





## **Q9. Word problem:**

 Rajesh took a loan of Rs 9850 from the bank. He paid back Rs 12240 to the bank in one year giving equal amount in each month. How much interest did he return? How much did he pay back every month?

Solution: Rajesh took a loan from bank = Rs 9850

No of amount he pay back in 1 year =12240-9850

=Rs 2390

He pay back every month =  $12240 \div 12$ 

#### = **Rs1020**

2) In a school, there are ten classes. Each class has four sections and each section has equal number of students. If altogether there are 1600 students in the school, then how many students are there in each section of a class?

## **Solution:** No. of classes = 10

No of sections in each class = 4

No of students in school = 1600

Total no. of classes =  $10 \times 4 = 40$ 

No. of students in each section =  $1600 \div 40 = 40$  students.

 There are three buckets containing 24 L, 36 L and 48 L of milk. Find the capacity of smallest (least) bucket that can measure the milk in the three buckets.

Solution -

The capacity of the smallest required bucket will be the L.C.M. of 24, 36 and 48. So we find the L.C.M.

2	24 , 36 , 48	
2	12 , 18 , 24	
з	6 , 9 , 12	
2	2,3,4	
2	1,3,2	
з	1 , 3 , 1	
	1 , 1 , 1	

L.C.M. =  $2 \times 2 \times 2 \times 2 \times 3 \times 3 = 144$ Thus L.c.m of 24, 36 and 48 is 144.

4) Three plastic containers contain 400 L, 500 L and 600 L of oil. Find the capacity of the largest container that can be filled an exact number of times from each drum.

#### Solution -

The capacity of the largest required container will be the H.C.F. of 400, 500 and 600. So we find the H.C.F.

2	400	2	500	2	600
2	200	2	250	2	300
2	100	5	125	2	150
2	50	5	25	3	75
5	25	5	5	5	25
1	5		1	5	5
3	1				1

 $400 = 2 \times 2 \times 2 \times 2 \times 5$ 

 $500 = 2 \times 2 \times 5 \times 5 \times 5$ 

 $600 = 2 \times 2 \times 2 \times 3 \times 5 \times 5$ 

H.C.F. is 2 × 2 × 5 = 20

So, the capacity of required container is 20 L.

5) A classroom black board is 75 m long and 12 m wide. Find the perimeter of black board?

- Solve: length =75m, breadth =12 m Perimeter of a board = 2 (l + b) = 2 (75 m + 12 m) = 2(87 m) = 174 m.
- 6) A carpet is 75 cm long and 38 cm wide. Find its area. **Solve:**

Area of carpet =  $l \times b$ 

- =  $75 \text{ cm} \times 38 \text{ cm}$ =  $2850 \text{ cm}^2$ .
- 7) Find the area of a square field whose side is 67 m.

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Solve: area of square = l \times l
= 67 m × 67 m
= 4489 m<sup>2</sup>
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8) The side of a square hall is 40 m. Find its area and also the cost of tiling it at rate of Rs 6.30 per square metre.

Solve: Side of the square hall = 40 m Area of square = Side  $\times$  Side = 40 m  $\times$  40 m = 1600 m<sup>2</sup> Cost of tiling the hall = 1600 sq. m  $\times$  Rs 6.30 = Rs 10080.00 Thus, the cost of tilling is Rs 10080.

9) If breadth of a rectangular plot is 10 m and its length is three times its breadth. Find the perimeter of rectangular plot.

Solve: We know, Breadth of rectangular plot = 10m Length of the plot =  $3 \times 10$  m = 30 m (given) So, perimeter of the plot = 2 (length + breadth) = 2 (30 m + 10 m) = 2 (40 m) = 80 m.

10) Find the perimeter of a square field. If the length of the square field is 49 m.

- Solve: perimeter of square =  $4 \times L$ =  $4 \times 49$  m
  - = 196 m.

Section - D

Q10. Complete the magic hexagon:





## Q11. Complete the magic square:

A. Fill this square using all the numbers from 46 to 54. Rule: The total of each line is 150.

	49
52	47
	52

B. Fill this square using all the numbers from 21 to 29. Rule: The total of each side is 75.



C. Fill this square using all the numbers from 6 to 14. Rule: The total of each side is 30.

