13/8/24

CY-2

Class 3rd
Mathematics
Learning

Mastery Assessment
Multiplication + Subtraction

Questions: 20

Grading:
>14: Mastery
<14: Not close to Mastery
=14: Close to Mastery

open door | understanding is important

Sections:
Q1-10: Multiplication
Q11-20: Subtraction

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1 Which of the multiplications is/are correct?

Multiplication I: $59 \times 0 = 590$
Multiplication II: $127 \times 1 = 127$

(A) Only multiplication I
(B) Only multiplication II
(C) Both
(D) None

2 Is the answer of the multiplication shown, correct? If not, what will be the correct answer?

(A) Yes, the answer is correct
(B) No, the correct answer will be 84
(C) No, the correct answer will be 94
(D) No, the correct answer will be 104

$$\begin{array}{r} 47 \\ \times\ 2 \\ \hline 814 \end{array}$$

3 Which of the following is same as 2×7 chocolates?

I. 2 boxes of chocolates and each box has 7 chocolates
II. $2 + 7$ chocolates

(A) Only I (B) Only II (C) Both (D) None

4 What carryover should be filled in the empty box?

(A) 1
(B) 3
(C) 4
(D) 5
(E) None of the above

$$\begin{array}{r} \square \leftarrow \text{Empty box} \\ 86 \\ \times\ 7 \\ \hline 602 \end{array}$$

5 What is the hidden digit in the multiplication shown?

(A) 0
(B) 6
(C) 7
(D) None of the above

$$\begin{array}{r} 178 \\ \times\ 9 \\ \hline 97\square 2 \end{array}$$

6 What number can be filled in the empty box? Choose from the options.

(A) Only 8
(B) Only 3
(C) Both 3 and 8
(D) None

$$\begin{array}{r} 9\square \\ \times\ 4 \\ \hline 372 \end{array}$$

7 Do we need to fill same number in all three empty boxes shown in the picture?

97	52	86
×15	×43	×22
485	156	172
+97□	+208□	+172□

(A) Yes (B) No

8 In which case(s), multiplication will be required?

Case I: You want to find total students in a class. The total number of students in each group are 3 and the total number of groups are 12.
Case II: You want to know how many chocolates did Ram, Shyam and Mahesh eat, if Ram ate 5 chocolates, Shyam ate 3 chocolates and Mahesh at 8 chocolates.

(A) Only case I
(B) Only case II
(C) Both
(D) None

9 Rahul opened 1 big parle g packet and obtained smaller packets as shown below. Each smaller packets have 8 biscuits. How many biscuits will be there in 1 big packet?

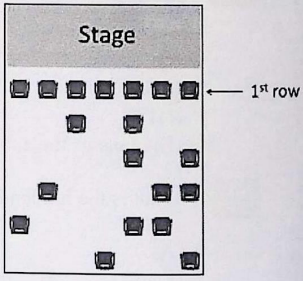
(A) 32
(B) 96
(C) 48
(D) None of the above

Big packet

Small packets

10 A meeting was held in a small meeting room. Initially, there were equal chairs in each row. After the meeting was over, some people took the chairs with them and remaining chairs are shown. How many chairs were there at the beginning of the meeting?

(A) 42
(B) 49
(C) 50
(D) Insufficient information given



11 Is the subtraction shown, correct?

(A) Yes
(B) No, correct answer is 842
(C) No, correct answer is 742
(D) No, correct answer is 852

$$\begin{array}{r} 805 \\ -\ \ 63 \\ \hline 862 \end{array}$$

12 Fill the blank boxes in the given subtraction.

$$\begin{array}{r} 4\ 5\ 7 \\ -\ 2\ 3\ 8 \\ \hline 2\ \square\ \square \end{array}$$

Box I (last box), Box II (middle box)

(A) Box I: 1, Box II: 2
(B) Box I: 9, Box II: 2
(C) Box I: 9, Box II: 1
(D) Box I: 1, Box II: 1

13 Observe the answer of the given operation and fill the blank box with correct sign.

$$\begin{array}{r} 8\ 2\ 5 \\ \text{Box} \leftarrow \square\quad 6\ 7 \\ \hline 7\ 5\ 8 \\ \hline \end{array}$$

(A) +
(B) −

14 Which of the following is the correct way to arrange the subtraction 830 − 62?

(A)
$$\begin{array}{l} \ \ 8\ 3\ 0 \\ -\ 6\ 2 \\ \hline \end{array}$$

(B)
$$\begin{array}{r} 8\ 3\ 0 \\ -\quad 2\ 6 \\ \hline \end{array}$$

(C)
$$\begin{array}{l} \ \ 8\ 3\ 0 \\ -\ 2\ 6 \\ \hline \end{array}$$

(D)
$$\begin{array}{r} 8\ 3\ 0 \\ -\quad 6\ 2 \\ \hline \end{array}$$

15 Who has correctly filled the blank box?

Harry filled 7 in box I and 2 in box II.
Tom filled 2 in box I and 7 in box II.

$$\begin{array}{r} 5\ 6\ \square \rightarrow \textbf{Box I} \\ -\ 1\ 4\ \square \rightarrow \textbf{Box II} \\ \hline 4\ 1\ 5 \qquad\qquad \\ \hline \end{array}$$

(A) Only Harry
(B) Only Tom
(C) Both Harry and Tom
(D) Neither Harry nor Tom

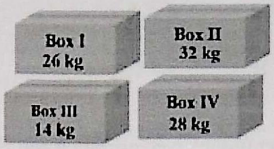
16 What is the hidden number in the given subtraction?

$$\begin{array}{r} 1\ \ 9\ \ 15 \\ \not{2}\ \ \bullet\ \ \not{5} \\ -\qquad 7 \\ \hline \end{array}$$

(A) 3
(B) 1
(C) 0
(D) 8

17 Raj has four boxes of mangoes. Out of those four boxes, Raj gave two boxes of mangoes to his friend. Which two boxes did Raj give to his friend?

(A) Box I and Box II
(B) Box II and Box IV
(C) Box I and Box III
(D) Box II and Box III



Total weight = 100 kg

Boxes left with Raj

Weight left = 54 kg

18 There are 40 fruits in the basket, which contains only apples, mangoes and bananas. If there are 12 apples and 8 bananas, what is the number of mangoes in the basket?

(A) 20
(B) 32
(C) 28
(D) We cannot find the number of mangoes from the given information

19 Sam has 200 rupees. After buying a pizza, he is left with 121 rupees. How much did he pay for the pizza?

(A) 89 rupees
(B) 79 rupees
(C) 69 rupees
(D) 121 rupees

20 Tom and John are two shopkeepers. Read the given information and tell who sold more pencils.

Tom had 359 pencils, and after selling some, he was left with 200 pencils.	John had 543 pencils, and after selling some, he was also left with 200 pencils.

(A) Tom
(B) John
(C) Both sold equal number of pencils

Class 4th
Mathematics
Learning

Grading:
>14: Mastery
<14: Not close to Mastery
=14: Close to Mastery

Mastery Assessment
Application of Four Arithmetic Operations in Daily Life + Fractions

Questions: 20

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Sections:
Q1-10: Application of Four Arithmetic Operations in Daily Life
Q11-20: Fractions

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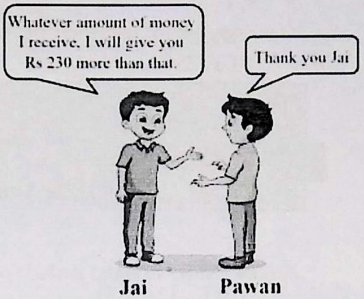
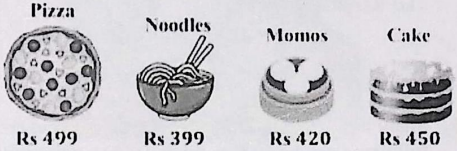
1 Read the conversation between Jai and Pawan and answer the following question:



If Jai received Rs 6530, then how much money will Jai give to Pawan?

(A) Rs 6300
(B) Rs 8830
(C) Rs 6760
(D) Rs 6830

2 Rajiv wants to purchase two dishes. Which two dishes will cost the least?
(Try to answer without adding costs)



(A) Pizza and Noodles
(B) Pizza and Momos
(C) Noodles and Momos
(D) Noodles and Cake

3 Rahul took his pocket money with him and went to play. He lost some coins there. How will he able to find the number of coins he lost?

(A) By adding number of coins remaining with initial total number of coins.
(B) By subtracting number of coins remaining from initial total number of coins.

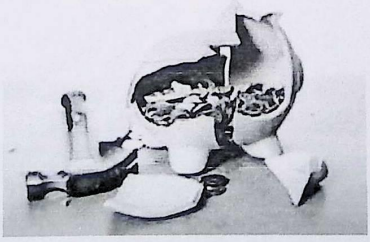
4 Sunil is reading a novel. By observing the information in picture, tell how many pages are left to read.

Portion of page he just finished **Portion of last page**

(A) 249
(B) 159
(C) 149
(D) 471

5 Raman broke his piggy bank and obtained Rs. 689 from it. He used some money and bought a cricket bat. Now, he has Rs 399 left. What is the price of the cricket bat?

(A) Rs. 310
(B) Rs. 210
(C) Rs. 290
(D) None of these



6 Which of the following currency note will you get in exchanging **10 notes of Rs.20**?

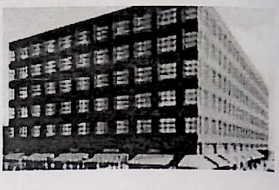
(A) 

(B) 

(C) 

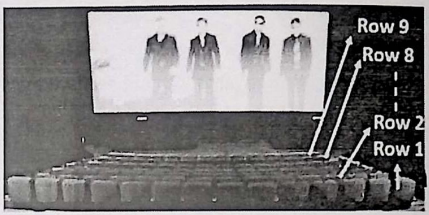
(D) 

7 **Each floor** of the building shown in the figure has **75 windows**. Find the total number of windows in the apartment.



(A) 80
(B) 355
(C) 375
(D) 400

8 Seats in a theatre are arranged in rows 1 to 9 as shown in the figure. If ticket of each seat is Rs. 5, then what is the **total cost** of booking all the seats of this theatre?
Hint: Count the number of chairs in 1 row as all rows have same number of chairs



(A) Rs. (9×5)
(B) Rs. (14×5)
(C) Rs. $(9 \times 14 \times 5)$
(D) Rs. $(9 + 14 \times 5)$

9 Shalu has some packets of chocolates. There are 8 chocolates in each packet. Which of the following can be total number of chocolates with Shalu? *(Read all the options)*

(A) 124
(B) 130
(C) 128
(D) All of these

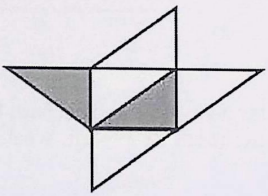
10 You have 23 apples. If you divide equal number of apples among 5 friends, then how many **whole apples** will each friend get?

(A) 3 (B) 4 (C) 5 (D) None

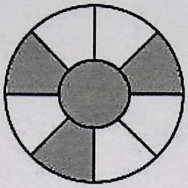
11 Which of the following is the correct fraction of the shaded part?

(A) $\frac{2}{4}$ (B) $\frac{4}{6}$

(C) $\frac{2}{6}$ (D) $\frac{4}{2}$



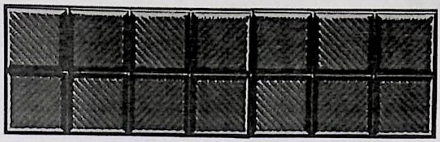
12 Which of the following is correct about the fraction of shaded part shown in the figure?
[*Note: Read all options before answering*]



(A) $\frac{4}{5}$ (B) $\frac{4}{9}$

(C) Cannot be calculated as parts are unequal

13 Laxman has a chocolate which has 14 blocks as shown. He gave $\frac{1}{2}$ (One-half) of the chocolate to Shreyas. How many blocks did Shreyas get?



(A) 2
(B) 4
(C) 7
(D) 10

14 A cake is divided into 8 equal parts as shown. What will be the fraction of the **complete cake**?

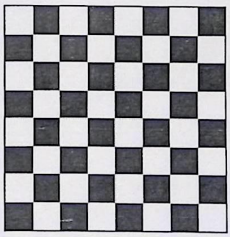
(A) $\frac{1}{8}$ (B) $\frac{8}{8}$

(C) 8 (D) None of these

15 A bag has 5 blue balls and 7 red balls. What fraction of the balls are **blue**?

(A) $\frac{5}{7}$ (B) $\frac{5}{12}$ (C) $\frac{7}{5}$ (D) None of these

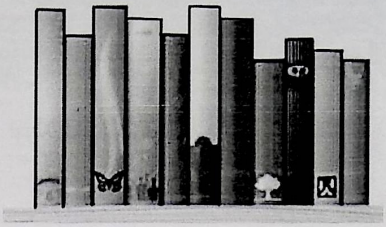
16 Observe the chessboard shown in the figure carefully. What portion of the chessboard is shaded black in colour?



(A) $\frac{64}{32}$ (B) $\frac{32}{32}$

(C) $\frac{32}{64}$ (D) $\frac{40}{64}$

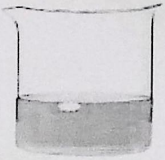
17 Virat has read 6 books from the shelf. What fraction of books from the shelf has he read?



(A) $\frac{1}{6}$ (B) $\frac{1}{11}$

(C) $\frac{6}{11}$ (D) $\frac{11}{6}$

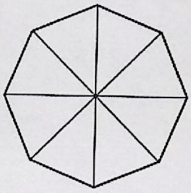
18 Which of the following can be the fraction of the liquid filled in the bottle shown in the figure?



(A) $\frac{1}{5}$ (B) $\frac{3}{4}$

(C) $\frac{1}{2}$ (D) $\frac{1}{3}$

19 How many parts of the given picture must be shaded such that fraction of the shaded portion will be an equivalent fraction of $\frac{1}{2}$?



(A) 2 parts
(B) 3 parts
(C) 4 parts
(D) 6 parts

20 Which of the following is/are an equivalent fraction of $\frac{2}{3}$?

I. $\frac{2+1}{3+1}$ II. $\frac{6}{9}$

(A) Only I (B) Only II
(C) Both (D) None

Class 5th
Mathematics
Learning

Grading:
>14: Mastery
<14: Not close to Mastery
=14: Close to Mastery

Mastery Assessment
Factors and Multiples + Fractional Numbers

Questions: 20

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Sections:
Q1-10: Factors and Multiples
Q11-20: Fractional Numbers

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1 Fill in the blanks:

20 is a ____(i)____ of 10 and 10 is a ____(ii)____ of 20.

(A) (i)→ Factor (ii) →Multiple
(B) (i) → Factor (ii) → Factor
(C) (i) → Multiple (ii) → Factor
(D) (i) → Multiple (ii) → Multiple

2 Rohit says that all the factors of 12 will also be the common factors of 12 and 24. Is Rohit's statement, correct?

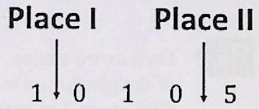
(A) Yes
(B) No

3 The _____ of two prime numbers is **always** a composite number. *(Read all the options)*

(A) Sum
(B) Product
(C) Both options A and B
(D) None of these

4 Where should you insert the additional digit 2 in the number 10105, so that the resulting number is divisible by 3?

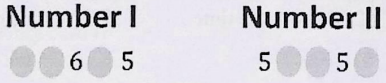
(Note: You will get a 6-digit number by inserting the additional digit 2)



(A) Only Place I
(B) Only Place II
(C) Either Place I or place II
(D) Neither of the two places

5 Which of the two numbers is/are **definitely** divisible by 5?
(Note: 3 digits are hidden in each number)

(A) Only number I
(B) Only number II
(C) Both numbers I and II
(D) Neither of the two numbers



6 What is the LCM of 4 and 40?

(A) 2
(B) 4
(C) 10
(D) 40

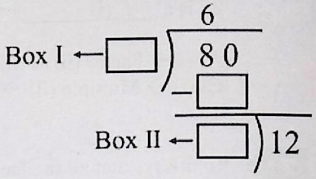
7 Is it possible to find the HCF of the two numbers if one of the digits in the prime factorisation is hidden? If yes, find the HCF of the numbers in the box.

Number I
$2 \times 2 \times 3 \times \square \times 5 \times 7 \times 11$

Number II
$2 \times 3 \times 5 \times 7 \times 11$

(A) Yes, HCF $= 2 \times 3 \times 5 \times 7 \times 11$
(B) Yes, HCF $= 2 \times 2 \times 3 \times 5 \times 7 \times 11$
(C) No, cannot find HCF without knowing the hidden number.

8 HCF of 80 and a hidden number is being calculated as shown. What should be filled in the blank boxes I and II?



(A) Box I: 11 Box II: 7
(B) Box I: 12 Box II: 2
(C) Box I: 8 Box II: 12
(D) Box I: 12 Box II: 8

9 Is the LCM of 12 and 20 calculated correctly?

10	12, 20
2	12, 2
3	6, 1
	2, 1

$LCM = 10 \times 2 \times 3 \times 2 = 120$

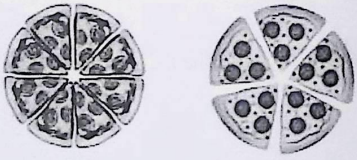
(A) Yes
(B) No, correct LCM = 100
(C) No, correct LCM = 60
(D) No, correct LCM = 4

10 On a metro station, train comes on both the sides of the platform. On side I, a train comes and goes after every 3 minutes and on side II, a train comes and goes after every 5 minutes. Trains were seen on both the sides at 9: 00 AM. At what time, can we see trains on both the sides?

Time I: At 9: 15 AM **Time II:** At 9: 20 AM

(A) Only at time I (B) Only at time II
(C) At both the time (D) At none of the time

11 Raj ate three pieces of pizza from Pizza I and three pieces from Pizza II. Is the fraction of pizza I eaten and fraction of pizza II eaten by Raj "like fractions"?



Pizza I Pizza II

(A) Yes
(B) No

12 Which of the following way(s) gives the correct equivalent fraction of $\frac{9}{6}$?

(A) Only way I
(B) Only way II
(C) Both way I and way II
(D) None

Way I	Way II
$\frac{9 \times 3}{6 \times 3} = \frac{27}{18}$	$\frac{9 \div 3}{6 \div 3} = \frac{3}{2}$

13 Fill in the blank box:

(A) 1
(B) 3
(C) 2
(D) 14

$$3\frac{\text{Box}}{4} = \frac{14}{4}$$

14 In which of the following case(s), can the fraction be converted into a mixed fraction?

$$\textbf{Fraction} = \frac{5}{\text{Number I}}$$

Case 1: Number I > 5 **Case 2**: Number I < 5

(A) Only case 1 (B) Only case 2 (C) Both case 1 and case 2 (D) None

15 What kind of fraction will you fill in the box to get the bigger result?

$$5 + \square = \text{Result}$$

(A) A proper fraction (B) A mixed fraction

16 In which case(s), is the calculation performed correctly?

Case I	Case II
$\frac{2}{9} + \frac{3}{9} = \frac{2+3}{9}$	$\frac{3}{8} + \frac{3}{2} = \frac{3}{8+2}$

(A) Only case I
(B) Only case II
(C) Both case I and case II
(D) None

17 Fill in the blank box:

$$\frac{7}{18} + \frac{5}{9} = \square$$

(A) $\frac{12}{27}$ (B) $\frac{12}{18}$

(C) $\frac{17}{18}$ (D) None

18 What is the value of $4 - \frac{3}{7}$?

(A) $\frac{1}{7}$ (B) $\frac{25}{7}$ (C) $\frac{1}{3}$ (D) None of these

19 $7\frac{4}{9} - 4\frac{1}{5} = ?$

(A) $3\frac{3}{4}$ (B) $3\frac{11}{45}$ (C) $3\frac{11}{9}$ (D) $3\frac{3}{45}$

20 Multiply: $\frac{3}{5} \times \frac{2}{7} = ?$

(A) $\frac{5}{12}$ (B) $\frac{6}{35}$ (C) $\frac{31}{35}$ (D) None