Fractions

Test

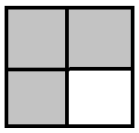
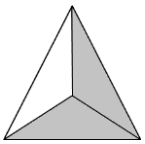
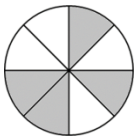
Time - 1 hour **Maximum Marks - 20**

Important Instructions

- This test contains 20 questions.
- Each question has FOUR options (1), (2), (3) and (4). ONLY ONE of these four options are correct.
- For each question, marks will be awarded in one of the following categories.

Full Marks : +1 : If only correct answer is given.
Zero Marks : 0 : If no answer is given.
Negative Marks : There is no negative marking.

(Q.1 to Q.4) Match the Column-I with Column-II and choose the correct option.

Column-I		Column-II	
(A)		(p)	$\frac{5}{6}$
(B)		(q)	$\frac{1}{2}$
(C)		(r)	$\frac{2}{3}$
(D)		(s)	$\frac{3}{4}$

1. Option A matches with

(1) p (2) q (3) r (4) s

2. Option B matches with

(1) p (2) q (3) r (4) s

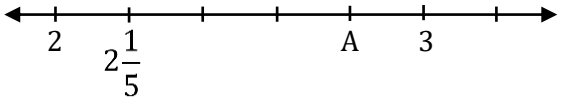
3. Option C matches with

(1) p (2) q (3) r (4) s

4. Option D matches with

(1) p (2) q (3) r (4) s

5. What is the mixed number represented by A on the above number line?



(1) $2\frac{4}{5}$ (2) $2\frac{2}{5}$ (3) $2\frac{1}{2}$ (4) $2\frac{3}{4}$

6. In a family with 11 children, there are 4 boys and 7 girls. What fraction of the children are girls?

(1) $\frac{7}{11}$ (2) $\frac{4}{11}$ (3) $\frac{11}{4}$ (4) $\frac{11}{7}$

7. Three fractions which are equivalent to $\frac{2}{5}$ are _____

(1) $\frac{4}{10},\frac{7}{20},\frac{16}{30}$ (2) $\frac{4}{10},\frac{1}{15},\frac{16}{40}$ (3) $\frac{4}{10},\frac{8}{20},\frac{16}{40}$ (4) $\frac{4}{10},\frac{8}{30},\frac{16}{80}$

8. What fraction of a day is 8 hours ?

(1) $\frac{2}{5}$ (2) $\frac{1}{4}$ (3) $\frac{1}{3}$ (4) $\frac{1}{6}$

9. Equivalent fraction of the fraction $\frac{7}{35}$ is

(1) $\frac{2}{5}$ (2) $\frac{1}{4}$ (3) $\frac{1}{5}$ (4) $\frac{1}{6}$

10. The proper fraction from the following is

(1) $\frac{5}{5}$ (2) $\frac{5}{2}$ (3) $\frac{7}{8}$ (4) None of these

11. Which of following are like fractions?

(1) $\frac{2}{5},\frac{4}{7},\frac{5}{6}$ (2) $\frac{3}{7},\frac{4}{7},\frac{5}{7}$ (3) $\frac{6}{5},\frac{9}{8},\frac{5}{6}$ (4) $\frac{2}{3},\frac{3}{4},\frac{4}{5}$

12. If $\frac{1}{2}+\frac{1}{3}+\frac{1}{x}=4$, then value of x is

(1) $\frac{5}{18}$ (2) $\frac{6}{19}$ (3) $\frac{18}{5}$ (4) $\frac{24}{11}$

13. Which of the following fraction is the smallest?

$\frac{5}{6},\frac{7}{8},\frac{3}{4},\frac{4}{5}$

(1) $\frac{3}{4}$ (2) $\frac{5}{8}$ (3) $\frac{7}{4}$ (4) $\frac{7}{9}$

14. Simplify : $4\frac{2}{3}-3\frac{1}{4}+2\frac{1}{6}$

(1) $3\frac{7}{12}$ (2) $4\frac{7}{12}$ (3) $3\frac{1}{4}$ (4) $9\frac{1}{12}$

15. Gunjan ate $\frac{4}{7}$ portion of rice and $\frac{3}{4}$ of dal. Which portion did she eat more and by how much?

(1) Dal, $\frac{5}{28}$ (2) Dal, $\frac{5}{8}$ (3) Rice, $\frac{1}{10}$ (4) Rice, $\frac{5}{28}$

16. On number line $\frac{5}{4}$ lies between

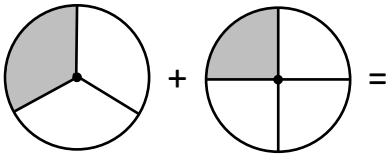
(1) 2 and 3 (2) 0 and 1 (3) 1 and 2 (4) 3 and 4

17. Rakesh bought $5\frac{2}{7}$ kg of sugar from market. Find the amount of sugar left if he consumed $2\frac{5}{14}$ kg of sugar.

(1) $3\frac{1}{14}$ kg (2) $2\frac{12}{14}$ kg (3) $2\frac{9}{14}$ kg (4) $2\frac{13}{14}$ kg

18. Raju goes to town by walking a distance of $\frac{4}{5}$ km and then take the bus to cover a distance of $5\frac{6}{15}$ km. What is the total distance covered by Raju?

(1) 3 km (2) $\frac{31}{5}$ km (3) $\frac{30}{5}$ km (4) None of these

19. 

(1) $\frac{7}{12}$ (2) $\frac{1}{11}$ (3) $\frac{1}{13}$ (4) None of these

20. If $\frac{6}{13}$ part of novel is read by Jyoti, then the fraction of novel to be read by Jyoti is

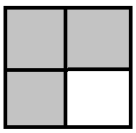
(1) $\frac{5}{13}$ (2) $\frac{6}{13}$ (3) $\frac{8}{13}$ (4) $\frac{7}{13}$

Test Solutions

Answer Key

Question	1	2	3	4	5	6	7	8	9	10
Answer	**4**	**3**	**2**	**1**	**1**	**1**	**3**	**3**	**3**	**3**
Question	11	12	13	14	15	16	17	18	19	20
Answer	**2**	**2**	**1**	**1**	**1**	**3**	**4**	**2**	**1**	**4**

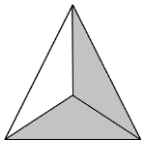
1. Option (4)



Total parts = 4 and out of these 3 parts are shaded

So, fraction is $\frac{3}{4}$.

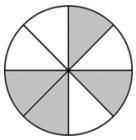
2. Option (3)



Total parts = 3 and out of these 2 parts are shaded

So, fraction is $\frac{2}{3}$.

3. Option (2)



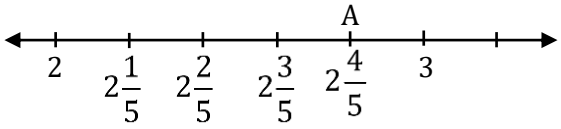
Total parts = 8 and out of these 4 parts are shaded. So, fraction is $\frac{4}{8}=\frac{1}{2}$.

4. Option (1)

Total parts = 6 and out of these 5 parts are shaded

So, fraction is $\frac{5}{6}$.

5. Option (1)



6. **Option (1)**

Total children are 11

Total number of boys = 4

Total number of girls = 7

Fraction of the children which are girls = $\frac{7}{11}$

7. **Option (3)**

$\frac{2\times2}{5\times2}=\frac{4}{10},\frac{2\times4}{5\times4}=\frac{8}{20},\frac{2\times8}{5\times8}=\frac{16}{40}$

8. **Option (3)**

There are 24 hours in a day. Therefore, 8 hours of a day represent $\frac{8}{24}=\frac{1}{3}$

9. **Option (3)**

$\frac{7}{35}=\frac{7}{7\times5}=\frac{1}{5}$

10. **Option (3)**

In proper fraction, the numerator is less than denominator. So $\frac{7}{8}$ is proper fraction.

11. **Option (2)**

Fractions having same denominators are like fractions. So $\frac{3}{7},\frac{4}{7},\frac{5}{7}$ are like fractions.

12. **Option (2)**

$\frac{1}{2}+\frac{1}{3}+\frac{1}{x}=4$

$\frac{3x+2x+6}{6x}=4$

$\frac{5x+6}{6x}=4$

$5x + 6 = 4 \times 6x$

$6 = 24x - 5x$

$19x = 6$

$x=\frac{6}{19}$

13. **Option (1)**

$\frac{5}{6},\frac{7}{8},\frac{3}{4},\frac{4}{5}$

For comparing these fractions, we make there denominator same by taking LCM of 6, 8, 4 and 5 and then comparing their numerators.

LCM of 6, 8, 4 and 5= 120

So $\frac{5\times20}{6\times20}, \frac{7\times15}{8\times15}, \frac{3\times30}{4\times30}, \frac{4\times24}{5\times24}$

$\frac{100}{120}, \frac{105}{120}, \frac{90}{120}, \frac{96}{120}$

$105 > 100 > 96 > 90$

So, $\frac{90}{120} = \frac{3}{4}$ is the smallest fraction.

2	6, 8, 4, 5
2	3, 4, 2, 5
2	3, 2, 1, 5
3	3, 1, 1, 5
5	1, 1, 1, 5
	1, 1, 1, 1

14. Option (1)

$4\frac{2}{3} - 3\frac{1}{4} + 2\frac{1}{6}$

$= \frac{14}{3} - \frac{13}{4} + \frac{13}{6}$

$= \frac{14\times4}{3\times4} - \frac{13\times3}{4\times3} + \frac{13\times2}{6\times2}$

$= \frac{56}{12} - \frac{39}{12} + \frac{26}{12}$

$= \frac{82-39}{12}$

$= \frac{43}{12} = 3\frac{7}{12}$

15. Option (1)

Fraction of rice = $\frac{4}{7}$

Fraction of dal = $\frac{3}{4}$

$\frac{4}{7} \square \frac{3}{4}$

$16 < 21$

$\frac{4}{7} < \frac{3}{4}$

Difference = $\frac{3}{4} - \frac{4}{7} = \frac{21-16}{28} = \frac{5}{28}$

Hence portion of dal she ate more by $\frac{5}{28}$.

16. Option (3)

$\frac{5}{4}$ is an improper fraction and can be written as $1\frac{1}{4}$ in mixed fraction form. Clearly it lies between 1 and 2.

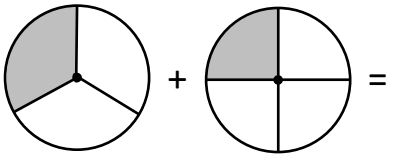
17. Option (4)

Amount of sugar left $= 5\frac{2}{7} - 2\frac{5}{14} = \frac{37}{7} - \frac{33}{14} = \frac{74-33}{14} = \frac{41}{14} = 2\frac{13}{14}$ kg

18. Option (2)

Total distance covered by Raju $= \frac{4}{5} + 5\frac{6}{15} = \frac{4}{5} + 5 + \frac{6}{15} = \frac{12+75+6}{15} = \frac{93}{15} = \frac{31}{5}$ km.

19. Option (1)



$\frac{1}{3} + \frac{1}{4} = \frac{4+3}{12} = \frac{7}{12}$

20. Option (4)

Let assume total part is 1.

Fraction of novel to be read by Jyoti $= 1 - \frac{6}{13} = \frac{7}{13}$