

**Class 6 Maths****Fractions****Addition and Subtraction of Fractions****Like and Unlike Fractions****SECTION A – Multiple Choice Questions 1 Mark Each**

Choose the correct answer.

1.  $\frac{2}{7} + \frac{3}{7} =$

- a  $\frac{5}{14}$
- b  $\frac{5}{7}$
- c 1
- d  $\frac{6}{7}$

2.  $\frac{5}{8} - \frac{2}{8} =$

- a  $\frac{3}{8}$
- b  $\frac{7}{8}$
- c  $\frac{2}{8}$
- d  $\frac{1}{8}$

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

- a  $\frac{2}{6}$
- b  $\frac{3}{4}$
- c  $\frac{1}{4}$
- d  $\frac{2}{4}$

4.  $\frac{3}{5} + \frac{2}{10} =$

- a  $\frac{5}{15}$
- b  $\frac{1}{2}$
- c  $\frac{8}{10}$
- d  $\frac{7}{10}$

5.  $\frac{7}{9} - \frac{4}{9} =$

- a  $\frac{3}{9}$
- b  $\frac{1}{3}$
- c Both a and b
- d  $\frac{5}{9}$

6. LCM of 4 and 6 is:

- a 8
- b 12
- c 24
- d 6

7.  $\frac{2}{3} + \frac{1}{6} =$

- a  $\frac{3}{9}$
- b  $\frac{5}{6}$
- c  $\frac{2}{6}$
- d  $\frac{1}{2}$

8.  $\frac{5}{6} - \frac{1}{3} =$

- a  $\frac{4}{3}$
- b  $\frac{2}{6}$
- c  $\frac{1}{2}$
- d  $\frac{3}{6}$

9. Which operation requires same denominators?

- a Addition of fractions
- b Subtraction of fractions
- c Both addition and subtraction
- d None

10.  $\frac{4}{5} - \frac{1}{10} =$

- a  $\frac{3}{10}$
- b  $\frac{7}{10}$
- c  $\frac{1}{2}$
- d  $\frac{5}{10}$

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**SECTION B – Fill in the Blanks**

1. Fractions with the same denominator are called \_\_\_\_\_ fractions.
  2.  $\frac{3}{8} + \frac{2}{8} =$  \_\_\_\_\_.
  3. The LCM of 3 and 5 is \_\_\_\_\_.
  4.  $\frac{7}{10} - \frac{3}{10} =$  \_\_\_\_\_.
  5. To add unlike fractions, we first make the \_\_\_\_\_ same.
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**SECTION C – True or False**

1.  $\frac{2}{5} + \frac{1}{5} = \frac{3}{10}$ . \_\_\_\_\_
  2. Unlike fractions have different denominators. \_\_\_\_\_
  3.  $\frac{5}{6} - \frac{1}{6} = \frac{4}{6}$ . \_\_\_\_\_
  4. LCM is used while adding unlike fractions. \_\_\_\_\_
  5.  $\frac{1}{2} + \frac{1}{3} = \frac{2}{5}$ . \_\_\_\_\_
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**SECTION D – Short Answer Questions 3 Marks Each**

1. Add:  $\frac{3}{9} + \frac{4}{9}$
  2. Subtract:  $\frac{8}{11} - \frac{3}{11}$
  3. Add:  $\frac{1}{2} + \frac{1}{4}$
  4. Subtract:  $\frac{5}{6} - \frac{1}{3}$
  5. Add:  $\frac{2}{5} + \frac{3}{10}$
  6. Subtract:  $\frac{7}{8} - \frac{1}{4}$
  7. Add:  $\frac{3}{7} + \frac{2}{7}$
  8. Subtract:  $\frac{9}{10} - \frac{2}{5}$
  9. Add:  $\frac{5}{12} + \frac{1}{6}$
  10. Subtract:  $\frac{11}{15} - \frac{2}{15}$
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**SECTION E – Word Problems**

1. Riya ate  $\frac{2}{8}$  of a cake and her sister ate  $\frac{3}{8}$ . How much cake was eaten altogether?
2. A tank contained  $\frac{7}{10}$  litre water.  $\frac{2}{10}$  litre was used. How much water is left?
3. Aman walked  $\frac{1}{3}$  km in the morning and  $\frac{1}{6}$  km in the evening. Find the total distance walked.
4. A ribbon of length  $\frac{5}{6}$  metre was cut by  $\frac{1}{3}$  metre. Find the remaining ribbon length.
5. Rahul completed  $\frac{3}{5}$  of homework on Monday and  $\frac{1}{5}$  on Tuesday. How much homework did he complete?
6. A juice bottle had  $\frac{7}{8}$  litre juice.  $\frac{1}{4}$  litre was consumed. How much juice is left?
7. A pizza was divided into 12 slices. Ravi ate  $\frac{5}{12}$  and Karan ate  $\frac{3}{12}$ . Find total pizza eaten.
8. Seema travelled  $\frac{2}{7}$  km by bus and  $\frac{3}{7}$  km by auto. Find total distance travelled.
9. A rope of length  $\frac{9}{10}$  metre was shortened by  $\frac{1}{5}$  metre. Find the remaining length.
10. A student completed  $\frac{5}{9}$  of a project and later completed another  $\frac{2}{9}$ . What fraction of project is completed now?

**ANSWERS WITH DETAILED SOLUTIONS****SECTION A – Answers**

1. b
  2. a
  3. b
  4. c
  5. c
  6. b
  7. b
  8. c
  9. c
  10. b
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**SECTION B – Answers**

1. Like
  2.  $\frac{5}{8}$
  3. 15
  4.  $\frac{4}{10}$
  5. Denominators
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**SECTION C – Answers**

1. False
  2. True
  3. True
  4. True
  5. False
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**SECTION D – Solutions**

**1.  $\frac{3}{9} + \frac{4}{9}$** 

Same denominator.

$$\text{so } \frac{3}{9} + \frac{4}{9} = \frac{7}{9}$$

$$\text{Answer} = \frac{7}{9}$$

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**2.  $\frac{8}{11} - \frac{3}{11}$** 

Same denominator.

$$\text{so, } \frac{8}{11} - \frac{3}{11} = \frac{5}{11}$$

$$\text{Answer} = \frac{5}{11}$$

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**3.  $\frac{1}{2} + \frac{1}{4}$** 

Different denominator so find LCM of 2 and 4

$$\text{LCM of 2 and 4} = 4$$

$$\text{so, } \frac{1}{2} = \frac{2}{4}$$

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

$$\text{Answer} = \frac{3}{4}$$

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**4.  $\frac{5}{6} - \frac{1}{3}$** 

Different denominator so find LCM of 6 and 3

$$\text{LCM of 6 and 3} = 6$$

$$\text{so, } \frac{1}{3} = \frac{2}{6}$$

$$\frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \frac{1}{2}$$

$$\text{Answer} = \frac{1}{2}$$

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**5.  $\frac{2}{5} + \frac{3}{10}$** 

$$\text{LCM} = 10$$

$$\frac{2}{5} = \frac{4}{10}$$

$$\frac{4}{10} + \frac{3}{10} = \frac{7}{10}$$

$$\text{Answer} = \frac{7}{10}$$

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**6.  $\frac{7}{8} - \frac{1}{4}$** 

$$\text{LCM} = 8$$

$$1/4 = 2/8$$

$$7/8 - 2/8 = 5/8$$

$$\text{Answer} = 5/8$$

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**7.  $3/7 + 2/7$**

Same denominator, so  $(3+2)/7 = 5/7$

$$\text{Answer} = 5/7$$

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**8.  $9/10 - 2/5$**

$$\text{LCM} = 10$$

$$2/5 = 4/10$$

$$9/10 - 4/10 = 5/10 = 1/2$$

$$\text{Answer} = 1/2$$

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**9.  $5/12 + 1/6$**

$$\text{LCM} = 12$$

$$1/6 = 2/12$$

$$5/12 + 2/12 = 7/12$$

$$\text{Answer} = 7/12$$

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**10.  $11/15 - 2/15$**

Same denominator, so  $(11-2)/15 = 9/15$

After reducing to simplest form we get  $3/5$

$$\text{Answer} = 3/5$$

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### **SECTION E – Word Problem Solutions**

**1.  $2/8 + 3/8 = 5/8$**

**Answer =  $5/8$  cake eaten.**

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**2.  $7/10 - 2/10 = 5/10 = 1/2$**

**Answer =  $1/2$  litre left.**

**3.  $1/3 = 2/6$**

**$2/6 + 1/6 = 3/6 = 1/2$**

**Answer =  $1/2$  km.**

**4.  $1/3 = 2/6$**

**$5/6 - 2/6 = 3/6 = 1/2$**

**Answer =  $1/2$  metre ribbon left.**

**5.  $3/5 + 1/5 = 4/5$**

**Answer =  $4/5$  homework completed.**

**6.  $1/4 = 2/8$**

**$7/8 - 2/8 = 5/8$**

**Answer =  $5/8$  litre left.**

**7.  $5/12 + 3/12 = 8/12 = 2/3$**

**Answer =  $2/3$  pizza eaten.**

**8.  $2/7 + 3/7 = 5/7$**

**Answer =  $5/7$  km travelled.**

**9.  $1/5 = 2/10$**

**$9/10 - 2/10 = 7/10$**

**Answer =  $7/10$  metre left.**

**10.  $5/9 + 2/9 = 7/9$**

**Answer =  $7/9$  project completed.**