

Different denominators

Years 5-6 | First multiples, then varied denominators

Name _____ Class _____ Date _____

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Find a common denominator before adding or subtracting. Give every answer in its simplest form.

Example: $\frac{1}{2} + \frac{1}{5} = \frac{5}{10} + \frac{2}{10} = \frac{7}{10}$. Find a common denominator first, then add the numerators.

Section A · One denominator is a multiple of the other

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

Answer

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

Answer

3. $\frac{3}{4} + \frac{1}{8} =$

Answer

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

Answer

5. $\frac{3}{4} - \frac{1}{2} =$

Answer

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

Answer

7. $\frac{7}{8} - \frac{1}{4} =$

Answer

8. $\frac{9}{10} - \frac{2}{5} =$

Answer

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Section B · Find a common multiple

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

10. $\frac{2}{5} + \frac{1}{3} =$

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

12. $\frac{5}{8} + \frac{1}{6} =$

13. $\frac{3}{4} - \frac{1}{3} =$

14. $\frac{4}{5} - \frac{2}{3} =$

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

16. $\frac{6}{7} - \frac{1}{4} =$

Different denominators · answers

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Check each answer and its method. Equivalent forms are correct unless a question asks for a particular form or degree of accuracy.

Section A · One denominator is a multiple of the other

1. $\frac{3}{4}$

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

2. $\frac{5}{6}$

$$\frac{2}{3} + \frac{1}{6} = \frac{4}{6} + \frac{1}{6} = \frac{5}{6}.$$

3. $\frac{7}{8}$

$$\frac{3}{4} + \frac{1}{8} = \frac{6}{8} + \frac{1}{8} = \frac{7}{8}.$$

4. $\frac{7}{10}$

$$\frac{2}{5} + \frac{3}{10} = \frac{4}{10} + \frac{3}{10} = \frac{7}{10}.$$

5. $\frac{1}{4}$

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

6. $\frac{1}{2}$

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

7. $\frac{5}{8}$

$$\frac{7}{8} - \frac{1}{4} = \frac{7}{8} - \frac{2}{8} = \frac{5}{8}.$$

8. $\frac{1}{2}$

$$\frac{9}{10} - \frac{2}{5} = \frac{9}{10} - \frac{4}{10} = \frac{1}{2}.$$

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Section B · Find a common multiple

9. 7/12

$$1/3 + 1/4 = 4/12 + 3/12 = 7/12.$$

10. 11/15

$$2/5 + 1/3 = 6/15 + 5/15 = 11/15.$$

11. 13/14

$$3/7 + 1/2 = 6/14 + 7/14 = 13/14.$$

12. 19/24

$$5/8 + 1/6 = 15/24 + 4/24 = 19/24.$$

13. 5/12

$$3/4 - 1/3 = 9/12 - 4/12 = 5/12.$$

14. 2/15

$$4/5 - 2/3 = 12/15 - 10/15 = 2/15.$$

15. 11/24

$$5/6 - 3/8 = 20/24 - 9/24 = 11/24.$$

16. 17/28

$$6/7 - 1/4 = 24/28 - 7/28 = 17/28.$$