

Maths Worksheet**Add and Subtract Fractions**

In this worksheet, students will add and subtract fractions.

Key Information

Topic	Fractions
Level (1-3)	● ● ○
Questions	10
Key Stage	KS 3
Year	8
Curriculum Coverage	Number
Curriculum Skill	Use Four Operations for All Numbers

Name Date

Introduction

In this activity, we will learn how to add and subtract fractions.

Examples

To add or subtract two fractions, you must first make the denominators (bottom numbers) the same.

To do this, we need to find the **lowest common multiple** of the denominators.

In the example below, we have 9 and 4 as the denominators and the lowest common multiple of 9 and 4 is 36.

Next, we need to recognise what we did to each denominator to turn it into 36, and do the same thing to the numerator.

With $\frac{2}{9}$, we multiplied the 9 by 4 to get 36, so we must multiply the 2 by 4 too. This gives us $\frac{8}{36}$.

With $\frac{3}{4}$, we multiplied the 4 by 9 to get 36, so we must multiply the 3 by 9 too. This gives us $\frac{27}{36}$.

Now we can add the two fractions: $\frac{8}{36} + \frac{27}{36} = \frac{35}{36}$.

We can't simplify this any further, so that is our answer.

$$\frac{2}{9} + \frac{3}{4} = \frac{2 \times 4}{36} + \frac{3 \times 9}{36} = \frac{8 + 27}{36} = \frac{35}{36}$$

In the example below, we find that 40 is the lowest common multiple of 8 and 5.

We multiplied 8 by 5 to get 40, so we multiply 5 by 5 to give us 25/40.

We multiplied 5 by 8 to get 40, so we multiply 2 by 8 to give us 16/40.

Finally, we can do our subtraction: $25/40 - 16/40 = 9/40$.

We can't simplify this any further, so that is our answer.

$$\frac{5}{8} - \frac{2}{5} = \frac{5 \times 5}{40} - \frac{2 \times 8}{40} = \frac{25 - 16}{40} = \frac{9}{40}$$

Remember that you should always reduce your answers to their lowest terms if possible.

QUESTIONS

Question 1

Add the fractions:

$$\frac{5}{7} + \frac{2}{9} = \underline{\quad}$$

Question 2

Subtract the fractions:

$$\frac{3}{7} - \frac{3}{8} = \underline{\quad}$$

Question 3

Subtract the fractions and reduce the answer:

$$\frac{3}{6} - \frac{2}{8} = \underline{\quad}$$

Question 4

Subtract the fractions:

$$\frac{4}{7} - \frac{3}{8} = \underline{\quad}$$

Question 5

Subtract the fractions and reduce:

$$\frac{7}{8} - \frac{5}{8} = \underline{\quad}$$

Question 6

Add the fractions and reduce:

$$\frac{6}{8} + \frac{1}{5} = \frac{\quad}{\quad}$$

Question 7

Add the fractions and reduce:

$$\frac{4}{9} + \frac{4}{8} = \frac{\quad}{\quad}$$

Question 8

Subtract the fractions:

$$\frac{7}{8} - \frac{7}{9} = \underline{\quad}$$

Question 9

Add the fractions and **leave your answer as an improper fraction**:

$$\frac{9}{10} + \frac{5}{9} = \underline{\quad}$$

Question 10

Subtract the fractions and reduce:

$$\frac{3}{7} - \frac{4}{10} = \underline{\quad}$$

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ANSWERS**Answer 1****Correct Answers**Answer 1 Answer 2 **Answers Explanation**

How did you get on with this one. We can't add or subtract fractions with different denominators, so the first thing to do is to find the lowest common multiple. The lowest common multiple of 7 and 9 is 63. Remember that we have to do the same thing to the numerator as we did to the denominator. So, we multiply $5/7$ by 9 to get the fraction $45/63$ We multiply $2/9$ by 7 to get $14/63$. $45/63 + 14/63 = 59/63$ This can't be simplified, so that is our answer.

Answer 2**Correct Answers**Answer 1 Answer 2 **Answers Explanation**

We can't add or subtract fractions with different denominators, so the first thing to do is to find the lowest common multiple. The lowest common multiple of 7 and 8 is 56. Remember that we have to do the same thing to the numerator as we did to the denominator. So, we multiply $3/7$ by 8 to get the fraction $24/56$. We multiply $3/8$ by 7 to get $21/56$. $24/56 - 21/56 = 3/56$ This can't be simplified, so that is our answer.

Answer 3

Correct Answers

Answer 1

Answer 2

Answers Explanation

We can't add or subtract fractions with different denominators, so the first thing to do is to find the lowest common multiple. The lowest common multiple of 6 and 8 is 24. Remember that we have to do the same thing to the numerator as we did to the denominator. So, we multiply $\frac{3}{6}$ by 4 to get the fraction $\frac{12}{24}$. We multiply $\frac{2}{8}$ by 3 to get $\frac{6}{24}$. $\frac{12}{24} - \frac{6}{24} = \frac{6}{24}$. We can simplify or reduce this fraction by dividing both the top and bottom by 6: $\frac{6}{24} \div 6 = \frac{1}{4}$.

Answer 4**Correct Answers**

Answer 1

Answer 2

Answers Explanation

We can't add or subtract fractions with different denominators, so the first thing to do is to find the lowest common multiple. The lowest common multiple of 7 and 8 is 56. Remember that we have to do the same thing to the numerator as we did to the denominator. So, we multiply $\frac{4}{7}$ by 8 to get the fraction $\frac{32}{56}$. We multiply $\frac{3}{8}$ by 7 to get $\frac{21}{56}$. $\frac{32}{56} - \frac{21}{56} = \frac{11}{56}$. This can't be simplified, so that is our answer.

Answer 5**Correct Answers**

Answer 1

Answer 2

Answers Explanation

This was an easier question because the two fractions have the same denominator. $\frac{7}{8} - \frac{5}{8} = \frac{2}{8}$. We can simplify or reduce this fraction by dividing both the top and bottom numbers by 2: $\frac{2}{8} \div 2 = \frac{1}{4}$.

Answer 6

Correct Answers

Answer 1

Answer 2

Answers Explanation

We can't add or subtract fractions with different denominators, so the first thing to do is to find the lowest common multiple. The lowest common multiple of 8 and 5 is 40. Remember that we have to do the same thing to the numerator as we did to the denominator. So, we multiply $\frac{6}{8}$ by 5 to get the fraction $\frac{30}{40}$. We multiply $\frac{1}{5}$ by 8 to get $\frac{8}{40}$. $\frac{30}{40} + \frac{8}{40} = \frac{38}{40}$. This can be simplified or reduced by dividing both the top and bottom numbers by 2: $\frac{38}{40} = \frac{19}{20}$.

Answer 7

Correct Answers

Answer 1

Answer 2

Answers Explanation

We can't add or subtract fractions with different denominators, so the first thing to do is to find the lowest common multiple. The lowest common multiple of 9 and 8 is 72. Remember that we have to do the same thing to the numerator as we did to the denominator. So, we multiply $\frac{4}{9}$ by 8 to get the fraction $\frac{32}{72}$. We multiply $\frac{4}{8}$ by 9 to get the fraction $\frac{36}{72}$. $\frac{32}{72} + \frac{36}{72} = \frac{68}{72}$. This can be simplified or reduced by dividing both the top and the bottom numbers by 4: $\frac{68}{72} \div 4 = \frac{17}{18}$.

Answer 8

Correct Answers

Answer 1

Answer 2

Answers Explanation

We can't add or subtract fractions with different denominators, so the first thing to do is to find the lowest common multiple. The lowest common multiple of 8 and 9 is 72. Remember that we have to do the same thing to the numerator as we did to the denominator. So, we multiply $\frac{7}{8}$ by 9 to get the fraction $\frac{63}{72}$. We multiply $\frac{7}{9}$ by 8 to get $\frac{56}{72}$. $\frac{63}{72} - \frac{56}{72} = \frac{7}{72}$. This can't be simplified, so that is our answer.

Answer 9

Correct Answers

Answer 1

Answer 2

Answers Explanation

We can't add or subtract fractions with different denominators, so the first thing to do is to find the lowest common multiple. The lowest common multiple of 10 and 9 is 90. Remember that we have to do the same thing to the numerator as we did to the denominator. So, we multiply $9/10$ by 9 to get the fraction $81/90$. We multiply $5/9$ by 10 to get $50/90$. $81/90 + 50/90 = 131/90$.

Answer 10

Correct Answers

Answer 1

Answer 2

Answers Explanation

We can't add or subtract fractions with different denominators, so the first thing to do is to find the lowest common multiple. The lowest common multiple of 7 and 10 is 70. Remember that we have to do the same thing to the numerator as we did to the denominator. So, we multiply $3/7$ by 10 to get the fraction $30/70$. We multiply $4/10$ by 7 to get $28/70$. $30/70 - 28/70 = 2/70$. This can be simplified or reduced by dividing both the top and bottom numbers by 2: $2/70 \div 2 = 1/35$. Great work - that's this activity completed.

Total score:

