Explainer: Adding fractions with unlike denominators

The first step to adding or subtracting fractions with unlike denominators is to convert the addends to equivalent fractions with a common denominator.

Questions to find a common denominator:

Is one of the denominators a multiple of the other? If so, then multiply the smaller by a fraction that equals 1 - For example: $\frac{1}{2} X \frac{2}{2} = \frac{2}{4}$ - to get common denominators.	$$\frac{1}{2} + \frac{3}{4} = \frac{2}{4} + \frac{3}{4}$$
Do the two denominators have a common multiple? If so multiply both fractions by a fraction that equals 1 to get common denominators. $(\frac{3}{6} X \frac{4}{4} = \frac{12}{24} \ and \frac{5}{8} X \frac{3}{3} = \frac{15}{24})$	$$\frac{3}{6} + \frac{5}{8} = \frac{12}{24} + \frac{15}{24}$$ $$\frac{3}{4} + \frac{7}{10} = \frac{15}{20} + \frac{14}{20}$$
If neither of those is true, then multiply the two denominators to get a common denominator and multiply both fractions by a fraction that equals 1 to get the common denominator. $(\frac{2}{5} X \frac{7}{7} = \frac{14}{35} \ and \frac{3}{7} X \frac{5}{5} = \frac{15}{35})$	$$\frac{2}{5} + \frac{3}{7} = \frac{14}{35} + \frac{15}{35}$$

Process:	1. Convert to fractions with a common denominator	2. Add the numerators.	3. Reduce or convert to a mixed fraction if needed.
$\frac{5}{2} + \frac{2}{3} =$	$\frac{15}{6} + \frac{4}{6} =$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6}$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6} = 3\frac{1}{6}$

1

Angelique made $1\frac{3}{4}$ of a gallon of fruit punch for a party. Unfortunately, she spilled $1\frac{3}{5}$ of a gallon when she tripped over her cat, Percy, while she was carrying it to the table. How much fruit punch does Angelique have left?

2

$$1\frac{1}{2} - 1\frac{2}{7} =$$

3

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

4

$$11\frac{1}{2} - 2\frac{1}{4} =$$

5

Martin is keeping track of how far he walks every day. He walked $\frac{7}{10}$ of a mile before breakfast and then another $\frac{2}{5}$ of a mile after dinner. How many miles is that in all?

6

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

Unit: Fractions: Adding & Subtracting Fractions
Lesson: 5.3.K - Adding and Subtracting Positive Rational Numbers: Fractions with Unequal Denominators
Problem Set 1

Questions to ask to find common denominators: (1) Is one denominator a multiple of the other? (2) Do the denominators have a common multiple? If no, then multiply the denominators to find the common denominator.

Process: 1. Convert to fractions with a common denominator. 2. Add or subtract. 3. Convert to mixed fraction if needed.

1	2	3	4	5	6
$\frac{35}{20} - \frac{32}{20} = \frac{3}{20}$	$\frac{21}{14} - \frac{18}{14} = \frac{3}{14}$	$\frac{20}{15} - \frac{6}{15} = \frac{14}{15}$	$\frac{46}{4} - \frac{9}{4} = \frac{37}{4} = 9\frac{1}{4}$	$\frac{7}{10} + \frac{4}{10} = \frac{11}{10} = 1\frac{1}{10}$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6} = 3\frac{1}{6}$

7	8	9	10	11	12
$\frac{16}{6} - \frac{9}{6} = \frac{7}{6} = 1\frac{1}{6}$	$\frac{42}{15} - \frac{20}{15} = \frac{22}{15} = 1\frac{7}{15}$	$\frac{27}{24} + \frac{20}{24} = \frac{47}{24} = 1\frac{23}{24}$	$\frac{30}{12} - \frac{13}{12} = \frac{17}{12} = 1\frac{5}{12}$	$\frac{51}{21} - \frac{35}{21} = \frac{16}{21}$	$\frac{54}{42} - \frac{35}{42} = \frac{19}{42}$

13	14	15	16	17	18
$\frac{15}{18} - \frac{8}{18} = \frac{7}{18}$	$\frac{45}{36} - \frac{40}{36} = \frac{5}{36}$	$\frac{46}{10} + \frac{7}{10} = \frac{53}{10} = 5\frac{3}{10}$	$\frac{22}{3} - \frac{4}{3} = \frac{18}{3} = 6$	$\frac{34}{8} - \frac{13}{8} = \frac{21}{8} = 2\frac{5}{8}$	$\frac{72}{45} + \frac{20}{45} = \frac{92}{45} = 2\frac{2}{45}$

19	20	21	22	23	24
$\frac{14}{11} + \frac{20}{11} = \frac{34}{11} = 3\frac{1}{11}$	$\frac{23}{8} + \frac{2}{8} = \frac{25}{8} = 3\frac{1}{8}$	$\frac{84}{8} + \frac{11}{8} = \frac{95}{8} = 11\frac{7}{8}$	$\frac{14}{10} + \frac{7}{10} = \frac{21}{10} = 2\frac{1}{10}$	$\frac{7}{4} + \frac{30}{4} = \frac{37}{4} = 9\frac{1}{4}$	$\frac{80}{15} - \frac{24}{15} = \frac{56}{15} = 3\frac{11}{15}$

25	26	27	28	29	30
$\frac{6}{10} - \frac{5}{10} = \frac{1}{10}$	$\frac{35}{21} + \frac{27}{21} = \frac{62}{21} = 2\frac{20}{21}$	$\frac{15}{9} + \frac{17}{9} = \frac{32}{9} = 3\frac{5}{9}$	$\frac{154}{35} - \frac{55}{35} = \frac{99}{35} = 2\frac{29}{35}$	$\frac{17}{10} - \frac{15}{10} = \frac{2}{10} = \frac{1}{5}$	$\frac{66}{9} - \frac{1}{9} = \frac{65}{9} = 7\frac{2}{9}$

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Do the two denominators have a common multiple? If so multiply both fractions by a fraction that equals 1 to get common denominators. ($\frac{3}{6} X \frac{4}{4} = \frac{12}{24}$ $and \frac{5}{8} X \frac{3}{3} = \frac{15}{24}$)	$\frac{3}{6} + \frac{5}{8} = \frac{12}{24} + \frac{15}{24}$ $\frac{3}{4} + \frac{7}{10} = \frac{15}{20} + \frac{14}{20}$
If neither of those is true, then multiply the two denominators to get a common denominator and multiply both fractions by a fraction that equals 1 to get the common denominator. ($\frac{2}{5} X \frac{7}{7} = \frac{14}{35}$ $and \frac{3}{7} X \frac{5}{5} = \frac{15}{35}$)	$\frac{2}{5} + \frac{3}{7} = \frac{14}{35} + \frac{15}{35}$

Process:	1. Convert to fractions with a common denominator	2. Add the numerators.	3. Reduce or convert to a mixed fraction if needed.
$\frac{5}{2} + \frac{2}{3} =$	$\frac{15}{6} + \frac{4}{6} =$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6}$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6} = 3\frac{1}{6}$

7

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

8

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

9

Melissa found $1\frac{1}{8}$ boxes of her favorite cereal in the pantry. Then she found another $\frac{5}{6}$ of a box in a cabinet. How much of her cereal is that combined?

10

Julien had $2\frac{1}{2}$ boxes of cereal on Monday. He wants his cereal to last until Saturday when he can go to the store. By Wednesday he had eaten $1\frac{1}{12}$ boxes. How much cereal does Julien have left to last the rest of the week?

11

$$2\frac{3}{7} - 1\frac{2}{3} =$$

12

$$1\frac{2}{7} - \frac{5}{6} =$$

Unit: Fractions: Adding & Subtracting Fractions
Lesson: 5.3.K - Adding and Subtracting Positive Rational Numbers: Fractions with Unequal Denominators
Problem Set 2

Questions to ask to find common denominators: (1) Is one denominator a multiple of the other? (2) Do the denominators have a common multiple? If no, then multiply the denominators to find the common denominator.

Process: 1. Convert to fractions with a common denominator. 2. Add or subtract. 3. Convert to mixed fraction if needed.

1	2	3	4	5	6
$\frac{35}{20} - \frac{32}{20} = \frac{3}{20}$	$\frac{21}{14} - \frac{18}{14} = \frac{3}{14}$	$\frac{20}{15} - \frac{6}{15} = \frac{14}{15}$	$\frac{46}{4} - \frac{9}{4} = \frac{37}{4} = 9\frac{1}{4}$	$\frac{7}{10} + \frac{4}{10} = \frac{11}{10} = 1\frac{1}{10}$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6} = 3\frac{1}{6}$
7	**8**	**9**	**10**	**11**	**12**
$\frac{16}{6} - \frac{9}{6} = \frac{7}{6} = 1\frac{1}{6}$	$\frac{42}{15} - \frac{20}{15} = \frac{22}{15} = 1\frac{7}{15}$	$\frac{27}{24} + \frac{20}{24} = \frac{47}{24} = 1\frac{23}{24}$	$\frac{30}{12} - \frac{13}{12} = \frac{17}{12} = 1\frac{5}{12}$	$\frac{51}{21} - \frac{35}{21} = \frac{16}{21}$	$\frac{54}{42} - \frac{35}{42} = \frac{19}{42}$
13	**14**	**15**	**16**	**17**	**18**
$\frac{15}{18} - \frac{8}{18} = \frac{7}{18}$	$\frac{45}{36} - \frac{40}{36} = \frac{5}{36}$	$\frac{46}{10} + \frac{7}{10} = \frac{53}{10} = 5\frac{3}{10}$	$\frac{22}{3} - \frac{4}{3} = \frac{18}{3} = 6$	$\frac{34}{8} - \frac{13}{8} = \frac{21}{8} = 2\frac{5}{8}$	$\frac{72}{45} + \frac{20}{45} = \frac{92}{45} = 2\frac{2}{45}$
19	**20**	**21**	**22**	**23**	**24**
$\frac{14}{11} + \frac{20}{11} = \frac{34}{11} = 3\frac{1}{11}$	$\frac{23}{8} + \frac{2}{8} = \frac{25}{8} = 3\frac{1}{8}$	$\frac{84}{8} + \frac{11}{8} = \frac{95}{8} = 11\frac{7}{8}$	$\frac{14}{10} + \frac{7}{10} = \frac{21}{10} = 2\frac{1}{10}$	$\frac{7}{4} + \frac{30}{4} = \frac{37}{4} = 9\frac{1}{4}$	$\frac{80}{15} - \frac{24}{15} = \frac{56}{15} = 3\frac{11}{15}$
25	**26**	**27**	**28**	**29**	**30**
$\frac{6}{10} - \frac{5}{10} = \frac{1}{10}$	$\frac{35}{21} + \frac{27}{21} = \frac{62}{21} = 2\frac{20}{21}$	$\frac{15}{9} + \frac{17}{9} = \frac{32}{9} = 3\frac{5}{9}$	$\frac{154}{35} - \frac{55}{35} = \frac{99}{35} = 2\frac{29}{35}$	$\frac{17}{10} - \frac{15}{10} = \frac{2}{10} = \frac{1}{5}$	$\frac{66}{9} - \frac{1}{9} = \frac{65}{9} = 7\frac{2}{9}$

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If neither of those is true, then multiply the two denominators to get a common denominator and multiply both fractions by a fraction that equals 1 to get the common denominator. $(\frac{2}{5} X \frac{7}{7} = \frac{14}{35} \ and \frac{3}{7} X \frac{5}{5} = \frac{15}{35})$	$$\frac{2}{5} + \frac{3}{7} = \frac{14}{35} + \frac{15}{35}$$

Process:	1. Convert to fractions with a common denominator	2. Add the numerators.	3. Reduce or convert to a mixed fraction if needed.
$\frac{5}{2} + \frac{2}{3} =$	$\frac{15}{6} + \frac{4}{6} =$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6}$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6} = 3\frac{1}{6}$

13

$$\frac{5}{6} - \frac{4}{9} =$$

14

$$1\frac{1}{4} - 1\frac{1}{9} =$$

15

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

16

$$7\frac{1}{3} - 1\frac{1}{3} =$$

17

Melissa is walking to her grandmother's house which is $4\frac{1}{4}$ miles away. So far, she has walked $1\frac{5}{8}$ of a mile. How much farther does she have to walk?

18

Carlotta the Cavity Queen eats way too much candy! This morning she had $1\frac{3}{8}$ bags of licorice twists for breakfast and then another $\frac{4}{9}$ of a bag for a mid-morning snack. How many bags of candy is that in all?

Unit: Fractions: Adding & Subtracting Fractions
Lesson: 5.3.K - Adding and Subtracting Positive Rational Numbers: Fractions with Unequal Denominators
Problem Set 3

Questions to ask to find common denominators: (1) Is one denominator a multiple of the other? (2) Do the denominators have a common multiple? If no, then multiply the denominators to find the common denominator.

Process: 1. Convert to fractions with a common denominator. 2. Add or subtract. 3. Convert to mixed fraction if needed.

1 $\frac{35}{20} - \frac{32}{20} = \frac{3}{20}$	**2** $\frac{21}{14} - \frac{18}{14} = \frac{3}{14}$	**3** $\frac{20}{15} - \frac{6}{15} = \frac{14}{15}$	**4** $\frac{46}{4} - \frac{9}{4} = \frac{37}{4} = 9\frac{1}{4}$	**5** $\frac{7}{10} + \frac{4}{10} = \frac{11}{10} = 1\frac{1}{10}$	**6** $\frac{15}{6} + \frac{4}{6} = \frac{19}{6} = 3\frac{1}{6}$
7 $\frac{16}{6} - \frac{9}{6} = \frac{7}{6} = 1\frac{1}{6}$	**8** $\frac{42}{15} - \frac{20}{15} = \frac{22}{15} = 1\frac{7}{15}$	**9** $\frac{27}{24} + \frac{20}{24} = \frac{47}{24} = 1\frac{23}{24}$	**10** $\frac{30}{12} - \frac{13}{12} = \frac{17}{12} = 1\frac{5}{12}$	**11** $\frac{51}{21} - \frac{35}{21} = \frac{16}{21}$	**12** $\frac{54}{42} - \frac{35}{42} = \frac{19}{42}$
13 $\frac{15}{18} - \frac{8}{18} = \frac{7}{18}$	**14** $\frac{45}{36} - \frac{40}{36} = \frac{5}{36}$	**15** $\frac{46}{10} + \frac{7}{10} = \frac{53}{10} = 5\frac{3}{10}$	**16** $\frac{22}{3} - \frac{4}{3} = \frac{18}{3} = 6$	**17** $\frac{34}{8} - \frac{13}{8} = \frac{21}{8} = 2\frac{5}{8}$	**18** $\frac{72}{45} + \frac{20}{45} = \frac{92}{45} = 2\frac{2}{45}$
19 $\frac{14}{11} + \frac{20}{11} = \frac{34}{11} = 3\frac{1}{11}$	**20** $\frac{23}{8} + \frac{2}{8} = \frac{25}{8} = 3\frac{1}{8}$	**21** $\frac{84}{8} + \frac{11}{8} = \frac{95}{8} = 11\frac{7}{8}$	**22** $\frac{14}{10} + \frac{7}{10} = \frac{21}{10} = 2\frac{1}{10}$	**23** $\frac{7}{4} + \frac{30}{4} = \frac{37}{4} = 9\frac{1}{4}$	**24** $\frac{80}{15} - \frac{24}{15} = \frac{56}{15} = 3\frac{11}{15}$
25 $\frac{6}{10} - \frac{5}{10} = \frac{1}{10}$	**26** $\frac{35}{21} + \frac{27}{21} = \frac{62}{21} = 2\frac{20}{21}$	**27** $\frac{15}{9} + \frac{17}{9} = \frac{32}{9} = 3\frac{5}{9}$	**28** $\frac{154}{35} - \frac{55}{35} = \frac{99}{35} = 2\frac{29}{35}$	**29** $\frac{17}{10} - \frac{15}{10} = \frac{2}{10} = \frac{1}{5}$	**30** $\frac{66}{9} - \frac{1}{9} = \frac{65}{9} = 7\frac{2}{9}$

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Process:	1. Convert to fractions with a common denominator	2. Add the numerators.	3. Reduce or convert to a mixed fraction if needed.
$\frac{5}{2} + \frac{2}{3} =$	$\frac{15}{6} + \frac{4}{6} =$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6}$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6} = 3\frac{1}{6}$

19

$$1\frac{3}{11} + 1\frac{9}{11} =$$

20

Logan Redberry used $2\frac{7}{8}$ gallons of bug spray on his poison ivy garden yesterday, and then used another $\frac{1}{4}$ of a gallon of spray today. How many gallons of bug spray is that in all?

21

$$10\frac{1}{2} + 1\frac{3}{8} =$$

22

$$1\frac{2}{5} + \frac{7}{10} =$$

23

$$1\frac{3}{4} + 7\frac{1}{2} =$$

24

Wanda the Witch had $5\frac{1}{3}$ inches of fresh lizard tail at her store. A customer came in and bought $1\frac{3}{5}$ inches of it. How much lizard tail does Wanda have left?

Unit: Fractions: Adding & Subtracting Fractions
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Problem Set 4

Questions to ask to find common denominators: (1) Is one denominator a multiple of the other? (2) Do the denominators have a common multiple? If no, then multiply the denominators to find the common denominator.

Process: 1. Convert to fractions with a common denominator. 2. Add or subtract. 3. Convert to mixed fraction if needed.

1	2	3	4	5	6
$\frac{35}{20} - \frac{32}{20} = \frac{3}{20}$	$\frac{21}{14} - \frac{18}{14} = \frac{3}{14}$	$\frac{20}{15} - \frac{6}{15} = \frac{14}{15}$	$\frac{46}{4} - \frac{9}{4} = \frac{37}{4} = 9\frac{1}{4}$	$\frac{7}{10} + \frac{4}{10} = \frac{11}{10} = 1\frac{1}{10}$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6} = 3\frac{1}{6}$

7	8	9	10	11	12
$\frac{16}{6} - \frac{9}{6} = \frac{7}{6} = 1\frac{1}{6}$	$\frac{42}{15} - \frac{20}{15} = \frac{22}{15} = 1\frac{7}{15}$	$\frac{27}{24} + \frac{20}{24} = \frac{47}{24} = 1\frac{23}{24}$	$\frac{30}{12} - \frac{13}{12} = \frac{17}{12} = 1\frac{5}{12}$	$\frac{51}{21} - \frac{35}{21} = \frac{16}{21}$	$\frac{54}{42} - \frac{35}{42} = \frac{19}{42}$

13	14	15	16	17	18
$\frac{15}{18} - \frac{8}{18} = \frac{7}{18}$	$\frac{45}{36} - \frac{40}{36} = \frac{5}{36}$	$\frac{46}{10} + \frac{7}{10} = \frac{53}{10} = 5\frac{3}{10}$	$\frac{22}{3} - \frac{4}{3} = \frac{18}{3} = 6$	$\frac{34}{8} - \frac{13}{8} = \frac{21}{8} = 2\frac{5}{8}$	$\frac{72}{45} + \frac{20}{45} = \frac{92}{45} = 2\frac{2}{45}$

19	20	21	22	23	24
$\frac{14}{11} + \frac{20}{11} = \frac{34}{11} = 3\frac{1}{11}$	$\frac{23}{8} + \frac{2}{8} = \frac{25}{8} = 3\frac{1}{8}$	$\frac{84}{8} + \frac{11}{8} = \frac{95}{8} = 11\frac{7}{8}$	$\frac{14}{10} + \frac{7}{10} = \frac{21}{10} = 2\frac{1}{10}$	$\frac{7}{4} + \frac{30}{4} = \frac{37}{4} = 9\frac{1}{4}$	$\frac{80}{15} - \frac{24}{15} = \frac{56}{15} = 3\frac{11}{15}$

25	26	27	28	29	30
$\frac{6}{10} - \frac{5}{10} = \frac{1}{10}$	$\frac{35}{21} + \frac{27}{21} = \frac{62}{21} = 2\frac{20}{21}$	$\frac{15}{9} + \frac{17}{9} = \frac{32}{9} = 3\frac{5}{9}$	$\frac{154}{35} - \frac{55}{35} = \frac{99}{35} = 2\frac{29}{35}$	$\frac{17}{10} - \frac{15}{10} = \frac{2}{10} = \frac{1}{5}$	$\frac{66}{9} - \frac{1}{9} = \frac{65}{9} = 7\frac{2}{9}$

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If neither of those is true, then multiply the two denominators to get a common denominator and multiply both fractions by a fraction that equals 1 to get the common denominator. $(\frac{2}{5} X \frac{7}{7} = \frac{14}{35} \ and \frac{3}{7} X \frac{5}{5} = \frac{15}{35})$	$\frac{2}{5} + \frac{3}{7} = \frac{14}{35} + \frac{15}{35}$

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25

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

26

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

27

Joe and Jackie are walking to Aunt Sally's House. First, they walked $1\frac{2}{3}$ miles to the ice cream store, then they walked another $1\frac{8}{9}$ miles to get to Aunt Sally's house. How many miles did they walk in all?

28

Mr. Ruiz uses lots of paper at his job! When he got to work this morning, he had $4\frac{2}{5}$ cases of paper and he has already used $1\frac{4}{7}$ cases this morning. How many cases of paper does he have left?

29

$$1\frac{7}{10} - \frac{11}{2} =$$

30

$$7\frac{1}{3} - \frac{1}{9} =$$

Unit: Fractions: Adding & Subtracting Fractions
Lesson: 5.3.K - Adding and Subtracting Positive Rational Numbers: Fractions with Unequal Denominators
Problem Set 5

Questions to ask to find common denominators: (1) Is one denominator a multiple of the other? (2) Do the denominators have a common multiple? If no, then multiply the denominators to find the common denominator.

Process: 1. Convert to fractions with a common denominator. 2. Add or subtract. 3. Convert to mixed fraction if needed.

1	2	3	4	5	6
$\frac{35}{20} - \frac{32}{20} = \frac{3}{20}$	$\frac{21}{14} - \frac{18}{14} = \frac{3}{14}$	$\frac{20}{15} - \frac{6}{15} = \frac{14}{15}$	$\frac{46}{4} - \frac{9}{4} = \frac{37}{4} = 9\frac{1}{4}$	$\frac{7}{10} + \frac{4}{10} = \frac{11}{10} = 1\frac{1}{10}$	$\frac{15}{6} + \frac{4}{6} = \frac{19}{6} = 3\frac{1}{6}$
7	**8**	**9**	**10**	**11**	**12**
$\frac{16}{6} - \frac{9}{6} = \frac{7}{6} = 1\frac{1}{6}$	$\frac{42}{15} - \frac{20}{15} = \frac{22}{15} = 1\frac{7}{15}$	$\frac{27}{24} + \frac{20}{24} = \frac{47}{24} = 1\frac{23}{24}$	$\frac{30}{12} - \frac{13}{12} = \frac{17}{12} = 1\frac{5}{12}$	$\frac{51}{21} - \frac{35}{21} = \frac{16}{21}$	$\frac{54}{42} - \frac{35}{42} = \frac{19}{42}$
13	**14**	**15**	**16**	**17**	**18**
$\frac{15}{18} - \frac{8}{18} = \frac{7}{18}$	$\frac{45}{36} - \frac{40}{36} = \frac{5}{36}$	$\frac{46}{10} + \frac{7}{10} = \frac{53}{10} = 5\frac{3}{10}$	$\frac{22}{3} - \frac{4}{3} = \frac{18}{3} = 6$	$\frac{34}{8} - \frac{13}{8} = \frac{21}{8} = 2\frac{5}{8}$	$\frac{72}{45} + \frac{20}{45} = \frac{92}{45} = 2\frac{2}{45}$
19	**20**	**21**	**22**	**23**	**24**
$\frac{14}{11} + \frac{20}{11} = \frac{34}{11} = 3\frac{1}{11}$	$\frac{23}{8} + \frac{2}{8} = \frac{25}{8} = 3\frac{1}{8}$	$\frac{84}{8} + \frac{11}{8} = \frac{95}{8} = 11\frac{7}{8}$	$\frac{14}{10} + \frac{7}{10} = \frac{21}{10} = 2\frac{1}{10}$	$\frac{7}{4} + \frac{30}{4} = \frac{37}{4} = 9\frac{1}{4}$	$\frac{80}{15} - \frac{24}{15} = \frac{56}{15} = 3\frac{11}{15}$
25	**26**	**27**	**28**	**29**	**30**
$\frac{6}{10} - \frac{5}{10} = \frac{1}{10}$	$\frac{35}{21} + \frac{27}{21} = \frac{62}{21} = 2\frac{20}{21}$	$\frac{15}{9} + \frac{17}{9} = \frac{32}{9} = 3\frac{5}{9}$	$\frac{154}{35} - \frac{55}{35} = \frac{99}{35} = 2\frac{29}{35}$	$\frac{17}{10} - \frac{15}{10} = \frac{2}{10} = \frac{1}{5}$	$\frac{66}{9} - \frac{1}{9} = \frac{65}{9} = 7\frac{2}{9}$