

Fractions: Adding & Subtracting

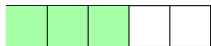
Retrieve and Connect

1. Fully simplify: $\frac{12}{16}$

2. Which is larger: $\frac{3}{7}$ or $\frac{3}{9}$?



3. Convert $\frac{11}{4}$ to a mixed number.



4. Complete the addition represented by the bars to the left:

$$\frac{?}{5} + \frac{?}{5} = \frac{3}{?}$$

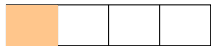


$$\frac{1}{2}$$

5. Calculate:

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

$$\frac{5}{9} + \frac{2}{9}$$



$$\frac{1}{4}$$

6. To add $\frac{1}{2} + \frac{1}{4}$, what must you do first? Can you draw a picture to demonstrate?

7. Calculate: $\frac{1}{5} + \frac{1}{5}$

8. Calculate: $\frac{1}{5} + \frac{1}{5}$

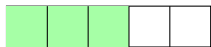
Retrieve and Connect

1. Fully simplify: $\frac{12}{16} = \frac{3}{4}$

2. Which is larger: $\frac{3}{7}$ or $\frac{3}{9}$? $\frac{3}{7}$



3. Convert $\frac{11}{4}$ to a mixed number. $= 2\frac{3}{4}$



4. Complete the addition represented by the bars to the left:

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

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



5. Calculate:

$$\frac{1}{7} + \frac{3}{7} \quad \frac{5}{9} + \frac{2}{9}$$

$$\frac{1}{2}$$



$$= \frac{4}{7}, \frac{7}{9}$$

$$\frac{1}{4}$$



6. To add $\frac{1}{2} + \frac{1}{4}$, what must you do first? Can you draw a picture to demonstrate? Find a common denominator: $\frac{1}{2} = \frac{2}{4}$, so $\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$.

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

7. Calculate: $\frac{1}{2} + \frac{1}{2} = \frac{3}{2}$ 8. Calculate: $\frac{1}{2} + \frac{1}{2} = \frac{7}{10}$

Retrieve and Connect:

1. Write 3 fractions equivalent to $\frac{2}{3}$.

2. Order smallest to largest: $\frac{1}{8}$, $\frac{1}{2}$, $\frac{1}{12}$

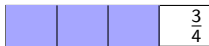


3. Convert $2\frac{3}{7}$ to an improper fraction.

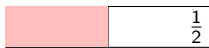


4. Complete the subtraction represented by the bars to the left:

$$\frac{4}{6} - \frac{?}{6} = \frac{?}{6} = \frac{1}{?}$$



5. Calculate:



$$\frac{7}{10} - \frac{3}{10} \quad \frac{8}{9} - \frac{5}{9}$$

6. Use the bars to work out $\frac{3}{4} - \frac{1}{2}$.

7. Calculate: $\frac{5}{6} - \frac{1}{4}$

8. Calculate: $\frac{7}{8} - \frac{2}{3}$

9. Order smallest to largest: $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{12}$

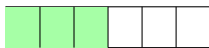
Retrieve and Connect

1. Write 3 fractions equivalent to $\frac{2}{3}$. $\frac{4}{6}, \frac{6}{9}, \frac{8}{12}$

2. Order smallest to largest: $\frac{1}{8}, \frac{1}{2}, \frac{1}{12}$ $\frac{1}{12} < \frac{1}{8} < \frac{1}{2}$

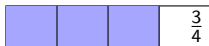


3. Convert $2\frac{3}{7}$ to an improper fraction. $= \frac{17}{7}$



4. Complete the subtraction represented by the bars to the left:

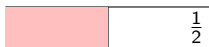
$$\frac{4}{6} - \frac{1}{6} = \frac{3}{6} = \frac{1}{2}$$



5. Calculate:

$$\frac{7}{10} - \frac{3}{10} \quad \frac{8}{9} - \frac{5}{9}$$

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



6. Use the bars to work out $\frac{3}{4} - \frac{1}{2}$. $= \frac{1}{4}$

7. Calculate: $\frac{5}{6} - \frac{1}{4} = \frac{7}{12}$ 8. Calculate: $\frac{7}{8} - \frac{2}{3} = \frac{5}{24}$

9. Order smallest to largest: $\frac{3}{8}, \frac{1}{2}, \frac{5}{12}$ $\frac{3}{8} < \frac{5}{12} < \frac{1}{2}$

Retrieve and Connect

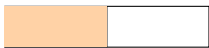
1. $\frac{2}{5} + \frac{1}{5}$

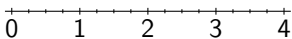
2. $\frac{3}{4} - \frac{1}{2}$

3. Simplify: $\frac{36}{48}$



+





4. Fill in the blanks using the diagram:

$$\frac{?}{4} + 1\frac{?}{?} = \frac{?}{4} + \frac{?}{4} = \frac{?}{4} = ?\frac{1}{?}$$

5.

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

6.

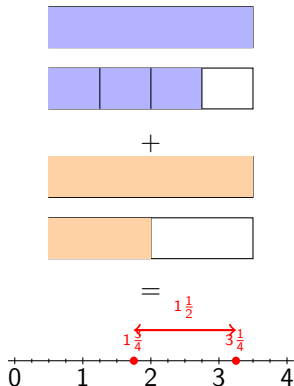
$$3\frac{1}{4} + 1\frac{1}{2}$$

7. Mark $1\frac{3}{4}$ and $3\frac{1}{4}$ on the number line. What is the difference? How else could you work this out?

8 Calculate: $2^2 + 1^3$ 0 Calculate: $1^3 + 3^1$

Retrieve and Connect

1. $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$ 2. $\frac{3}{4} - \frac{1}{2} = \frac{1}{4}$ 3. Simplify: $\frac{36}{48} = \frac{3}{4}$



4. Fill in the blanks using the diagram:

$$1\frac{3}{4} + 1\frac{1}{2} = \frac{7}{4} + \frac{6}{4} = \frac{13}{4} = 3\frac{1}{4}$$

5.

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

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

6.

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

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

7. Mark $1\frac{3}{4}$ and $3\frac{1}{4}$ on the number line. What is the difference? How else could you work this out? Difference = $\frac{3}{2} = 1\frac{1}{2}$; work out as $3\frac{1}{4} - 1\frac{3}{4} = \frac{13}{4} - \frac{7}{4} = \frac{6}{4} = \frac{3}{2}$.

8. Calculate: $2\frac{2}{3} + 1\frac{3}{4}$ 9. Calculate: $1\frac{3}{4} - 3\frac{1}{2}$

Retrieve and Connect

1. Which is greater: $2\frac{1}{3}$ or $2\frac{2}{5}$?

2. Convert $\frac{23}{6}$ to a mixed number.

3. Consider the diagram on the left, fill in the blanks to demonstrate subtraction using improper fractions:



$$3\frac{1}{4} - 1\frac{3}{4} = \frac{?}{4} - \frac{?}{4} = \frac{?}{4} = \frac{?}{?}$$

4.

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

5.

$$4\frac{5}{6} - 2\frac{1}{6}$$

6.

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

7.

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

8.

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

9.

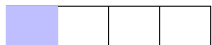
$$\frac{1}{2} - \frac{3}{4}$$

Retrieve and Connect

1. Which is greater: $2\frac{1}{3}$ or $2\frac{2}{5}$? $2\frac{2}{5}$

2. Convert $\frac{23}{6}$ to a mixed number. $= 3\frac{5}{6}$

3. Consider the diagram on the left, fill in the blanks to demonstrate subtraction using improper fractions:



$$3\frac{1}{4} - 1\frac{3}{4} = \frac{13}{4} - \frac{7}{4} = \frac{6}{4} = 1\frac{2}{4}$$

4.

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

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

5.

$$4\frac{5}{6} - 2\frac{1}{6}$$

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

6.

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

$$= 3\frac{11}{12}$$

7.

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

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

8.

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

9.

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

Retrieve and Connect

1. Fully simplify: $\frac{15}{20}$

2. Fully simplify: $\frac{72}{96}$

3. Use the fraction wall to fill in the blanks:

$$\frac{1}{2} + \frac{?}{6} = 1 \quad \frac{?}{3} + \frac{?}{6} = 1$$

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

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

Fraction wall

1

$\frac{1}{2}$

$\frac{1}{2}$

$\frac{1}{3}$

$\frac{1}{3}$

$\frac{1}{3}$

$\frac{1}{6}$

$\frac{1}{6}$

$\frac{1}{6}$

$\frac{1}{6}$

$\frac{1}{6}$

$\frac{1}{6}$

$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$
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6. Maya says: " $\frac{1}{2} + \frac{1}{3} = \frac{2}{5}$ ". Explain the mistake and find the correct answer.

7. Amir eats $\frac{3}{8}$, Beth eats $\frac{1}{4}$, Cal eats $\frac{1}{3}$ of a pizza. What fraction is left?

8. Fill in the blanks: $3\frac{1}{4} + \underline{\hspace{1cm}} = 5\frac{1}{6}$

9. True or false? $\frac{a}{b} + \frac{a}{c} = \frac{2a}{b+c}$. Can you explain your 

Retrieve and Connect

1. Fully simplify: $\frac{15}{20} = \frac{3}{4}$ 2. Fully simplify: $\frac{72}{96} = \frac{3}{4}$

3. Use the fraction wall to fill in the blanks:

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

$$4. \quad 2\frac{3}{4} + 1\frac{2}{3} = 4\frac{5}{12} \qquad 5. \quad 4\frac{1}{5} - 1\frac{3}{4} = 2\frac{9}{20}$$

Fraction wall

1

 $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{6}$ $\frac{1}{6}$ $\frac{1}{6}$ $\frac{1}{6}$ $\frac{1}{6}$ $\frac{1}{6}$ [illegible]

6. Maya says: " $\frac{1}{2} + \frac{1}{3} = \frac{2}{5}$ ". Explain the mistake and find the correct answer. She added the denominators too; use a common denominator: $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$.

7. Amir eats $\frac{3}{8}$, Beth eats $\frac{1}{4}$, Cal eats $\frac{1}{3}$ of a pizza.
What fraction is left? $\frac{1}{24}$

8. Fill in the blanks: $3\frac{1}{4} + 1\frac{11}{12} = 5\frac{1}{6}$

9. True or false? $\frac{a}{b} + \frac{a}{c} = \frac{2a}{b+c}$. Can you explain your